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ABSTRACT

This issue of "Irish Educational Studies" focuses on curriculum and learning issues and includes: (1) "Aesthetic Perspectives in Curriculum Reform" (D. Murphy); (2) "Drama: Less Talk, More Action" (M. Drury); (3)" Out of Tune with Reality: Music and the School in Ireland" (M. O'Suilleabhain); (4) "Erotics, Not Hermeneutics" (T. Mullins); (5) "The Context of Creative Writing" (S. O'hEili); (6) "Foundations and Practice of the New Curriculum" (H. Gash); (7) "The Design of Irish Primary School Buildings in the Era of the New Curriculum" (J. Kavanagh); (8) "Teaching the Logic of Subjects" (K. McDermott; P. Caulwell); (9) "Post-Primary Science Education: Evolution or Degeneration?" (B. Reidy); (10) "The Curricular Impact of Computers in Education" (J. Kelly); (11) "Teagasc na Gaeilge san Iarbunscoil" (M. O'Fathaigh); (12) "Try-Out of an Instructional Management System in Primary School Mathematics" (J. Close); (13) "Critical Variables in Relation to Differences Between the Mathematics Achievement of Girls and Boys" (B. Sugrue); (14) "Enterprise Development and Entrepreneurship in Third-Level Courses in Ireland" (A. White); (15) "Higher Level Vocational Rehabilitation: The Development of a New Service" (P. Davies); and (16) "A Progress Report on the 1936-86 Project at Shannon" (J. Gleeson). The second part of the volume contains 18 articles including: (1) "Left Brain, Right Brain," (S. O'Suilleabhain); (2) "Half Your Future? A Discussion of the Notion of a Common Educational Policy for Europe" (D. Swan); (3) "The Effect of Standardized Test Information on Teachers' Assessment of ABility in Their Classes" (P. Archer, P. Fontes); (4) "The Marino Graded Word Reading Scale at Third Level: Some Insights" (E. O'Baiollain); (5) "Management and Accountability: A Post-Primary Perspective" (L. Murtagh); (6) "School Management and Curriculum Development" (A. O'Shea); (7) "Principals' Delegation and Posts of Responsibility in Dublin National Schools"

(D. Herron); (8) "Organisation Structure and Climate: A Study of Four Large Community Schools in the Dublin Area" (K. O'Meara); (9) "Choice of School, Competition, Resource Allocation and Curriculum Change: A Case Study" (M. Hanley); (10) "Identity: A Covert Pedagogy in Northern Irish Schools" (D. Murray); (11) "Microteaching, Classroom Interaction Analysis and Teacher Self-Evaluation: Developments in the Higher Diploma in Education Course at Maynooth" (M. Chathain); (12) "Models of Teaching: Toward the Construction of a Meta-Model" (F. Flanagan); (13) "The Provision of Technical Education in the City of Cork, 1850-1920" (K. Byrne); (14) "The Trim Model Schools" (L. Walsh); and (15) "Archbishop Walsh and St. Mary's University College, 1893-1908" (F. O'Driscoll). (JHP)

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General Editor's Comment

Irish Educational Studies Volume 5 includes thirty-eight contributions in two numbers. This is reflective of a thriving interest in educational research. Contributors include practising teachers at first- and second-level education, lecturers in the education departments of colleges of education and universities, professional researchers in research institutions, as well as a number of distinguished representatives from other educational or cultural institutions. The themes deal with a varied range of concerns and, accordingly, should be of interest to a wide readership.

It is noticeable in recent years, at a time when curriculum change and reform is one of the major issues in educational debate in Ireland, North and South, that many papers focus on curricular and pedagogic concerns. Thus, the whole content of Volume 5, Number 1 is devoted to papers dealing with such themes.

A cluster of articles examines aspects of the arts in the curriculum. A number of reports in recent years, including two from the Arts Council and one from the Curriculum and Examinations Board, have highlighted the lamentable provision which exists for the arts within the education system. Many significant issues are raised in the papers on the arts in this number. The 'new' curriculum for primary schools was introduced fifteen years ago, in 1971, and is now being subjected to fresh appraisal in terms of policy and implementation by the Curriculum and Examinations Board and other commentators. A number of articles included here focus on aspects of this curriculum. Other topics dealt with include the position of Irish, science, mathematics and computers in the schools. Youth training programmes have become prominent features of modern life for young people and this issue includes valuable reports on the Northern Ireland youth training programme. To add further variety to this rich compendium there is an article on recent developments in vocational rehabilitation, another on enterprise development in third-level courses, and one on a local studies experiment.

The papers in Volume 5, Number 2 treat of other topics of academic, professional and policy interest. They include a review of research in the left brain - right brain controversy and a discussion of the idea of a common educational policy for Europe. In recent years increasing attention has been devoted to the administration and management of schools and four articles in this issue focus on these topics. Other articles deal with the sociological aspects of schooling and with approaches to teacher education. There are articles on standardized tests while five articles examine specific aspects of our educational history.

Thus, Volume 5 continues the policy of the Educational Studies Association of providing a wide-ranging forum for new educational research, rather than compartmentalising it into particular specialisms. The years ahead probably involve the greatest educational challenge which has faced the Irish people in the context of the political, social and economic conditions which prevail. Educational research has a vital role to play, through a variety of influences, in the developments which lie ahead.

Irish Educational Studies, Vol. 5, No. 1, 1985

AESTHETIC PERSPECTIVES IN CURRICULUM REFORM

Daniel Murphy

I want to begin with a report from the Times Educational Supplement of June 15, 1984 on the election of Peter Levi to the Professorship of Poetry at Oxford University:

> Mr. Peter Levi, the new professor of poetry at Oxford University, this week criticized some modern teaching methods which he said treated poetry as a kind of "do-it-yourself form of self-expression".
>
> Mr. Levi, a former Jesuit priest said he had never been taught to write poetry, but he had been taught the rules of metre and rhyme, how to spell, and how to understand. He had also had to learn poems by heart.
>
> "It really worries me to find some teachers thinking it is very easy to write poetry," he said. "There is no reason why poetry should have any less logic, reason, or cogency than prose." 1

I am quoting Mr. Levi because he points to a problem confronting all educators at the present time, particularly those concerned with the arts. That problem is the confusion currently surrounding the notion of creativity. It is one which is common to the visual arts, music, literature and drama and to the approaches adopted to the teaching of those subjects in our schools. The problem manifests itself in two main forms: firstly in the increasingly frequent use of the term creative to describe activities not exemplifying the kind of originality which the term traditionally conveyed; secondly, in the accompanying delusion that all children possess latent artistic capacities which can be awakened through appropriate methods of teaching. Both issues, fortunately, have been addressed closely by theorists in the field of aesthetic education. In this paper I am proposing to examine the work of those theorists with a view to clarifying the problem and considering its implications for the reforms envisaged for our own school curricula.

My concern, therefore, will be primarily the definition of aims and objectives in the sphere of aesthetic education, or, to be more precise, in the traditional art-forms constituting the aesthetic sphere of experience, knowledge and meaning. There are strong reasons to suggest that our own methods of defining aims for the aesthetic disciplines included in our school curricula are seriously inadequate, frequently confused, and insufficiently informed by developments in aesthetic theory and pedagogy. The result is haphazardly designed, frequently unbalanced and, in some instances, radically defective courses at primary and post-primary level. Out of concern for the future of the arts we must consider the possibility that their unfavourable status in our society may have more to do with confusion in our educational thinking on what constitutes aesthetic fulfilment than with the various non-school factors to which the decline of the arts is conventionally assigned.

I would like to indicate clearly the context in which I am considering the aims of aesthetic studies. I believe the case for the inclusion of the arts in a compulsory core curriculum up to the end of the lower second-level cycle has been made convincingly by curriculum theorists, arguing both from philosophical perspectives and from the standpoint of tested experience. Provision is made for the arts in all the major classifications of essential knowledge,[2] though considerable disagreement exists on the kind of content that is appropriate to aesthetic studies and further disagreement exists on how it should be taught. But there appears to be universal support for the view that all children should have the benefit of an education in the arts. Secondly, evidence from various countries, particularly from our companion member states in the EEC, suggests that appropriately designed courses in the arts can be taught effectively to all children up to the end of the period of compulsory schooling. It would appear from the recently issued Document of the Curriculum and Examinations Board that the case for mandatory studies in the arts up to the end of the lower secondary cycle has been accepted. In such a situation it becomes all the more urgent that the aims which a comprehensive programme in the arts would be expected to achieve should be defined carefully and realistically.

The long-standing polarisation between progressives and traditionalists in educational theory as a whole has significantly influenced developments in aesthetic education. Perhaps I can best illustrate the nature of this debate by taking two areas of the curriculum that have been affected fundamentally by the conflicting positions taken up by theorists on both sides. On the visual arts, for instance, controversy has focussed mainly on the work of Herbert Read: on his promotion of the notion of creativity as spontaneous self-expression, his virtual identification of art with play, his exaggerated claims for Freudian theories of symbolisation and his inflated sense of the value of children's art. I would like to quote three statements from Education Through Art which clearly identify Read with the extremes of progressive theory. At an early stage in the work he writes:

> It is assumed that the general purpose of education is to foster the growth of what is individual in each human being, at the same time harmonizing the individuality thus educated with the organic unity of the social group to which the individual belongs. 3

This, on first reading, seems no more than a humanely inspired platitude, but later we find that the notion of growth is identified primarily with the free expression of individual impulses. "Education," he says, "is the fostering of growth, but apart from physical maturation growth is only made apparent in expression - audible or visible signs and symbols."[4] This is taken a stage further again when self-expression is equated with artistic expression. The following is the quotation from Education Through Art which has drawn the most vociferous condemnation of progressive theory and the entire child art movement from a multitude of writers who see the equation of art with individual expression as debasing the complex and highly developed processes involved in the act of creation. "All faculties, of thought, logic, memory, sensibility and intellect," Read says, "are involved in such processes (the expressive) . . . And they are all processes which involve art, for art is nothing but the good making of sounds, images, etc. The aim of education is therefore the creation of artists - of people efficient in the various modes of expression."[5]

Predictably, such views have provoked widespread condemnation for their reduction of artistic creativity to the level of commonplace experience. Before I consider the reaction to this, I would like first to refer briefly to the creative writing movement in English which shares with the child art movement in the visual arts a strong emphasis also on expressive spontaneity. Its advocates fall into two main groupings: those such as Langdon, Pym and Hourd,[6] whose emphasis on self-expression is so excessive as to make a concern for the formal conventions of writing seem peripheral to the entire process, and others, such as Peel and Maybury,[7] who have described a more balanced approach to the expressive and technical aspects of writing. The following statement from a widely-used pedagogic manual is fairly typical of the excesses of the first of these two approaches. On the need for instruction in the technical skills of writing, the author advises as follows:

> Correctness in spelling or tenses is unimportant. The spontaneity that is vital to much of this work will be lost if spelling creates inhibitions . . . Indeed, so unimportant is the criterion of spelling, agreement and the like, that, in the case of the non-writer, the teacher must be prepared either for another pupil to write down the work at the author's dictation or make arrangements for the pupil to tape his own work, alterations and all. 8

I must stress that this is indeed an extreme position and one cautiously avoided by Maybury, Peel and others, who advise various stages in the drafting of imaginative writing, with a planning stage at the outset and a revision stage at the end being devoted to the ordering of subject-matter and the correction of errors in grammar, syntax, punctuation and spelling.

Yet the main result of this continuing emphasis on spontaneity has been an imbalance in teaching between the expressive and structural aspects of writing, with the latter being seen frequently as subordinate and relatively unimportant features of the drive for expressive fluency. As an instance of this I would cite the pedagogical writings of David Holbrook. Despite his clear concern for training in the constructional skills of writing in English for Maturity, and despite his rejection of progressivism in English for Meaning, Holbrook has provided much support for the idea that children who are emotionally, socially and linguistically deprived attain high levels of literacy, simply by an outpouring of emotion in a stream of disorganised and technically defective prose. Of one of the pupils in the case studies from English for the Rejected, for example, he said:

> Though she often spelt wrongly, and her punctuation was imperfect, these faults often arose simply because her courageous sallies into imaginative expression far outstripped her technical powers of handling words graphically. But she seemed to me the most literate of the children, in that her language, coming directly as she spoke, felt and thought, without conscious manipulation, had the power not only to move deeply but also to express profound truths of nature and reality. 9

This, whatever the author's intention, is clearly open to serious misinterpretation and was indeed in conflict with research, occurring at the time the book was written, which found greater confidence in linguistic expression amongst children instructed systematically in the technical skills.[10] The whole issue has since culminated in the controversies surrounding the Bullock Report of 1975, and the further polarisation represented by the current debates on the relative merits of the aesthetic and the communications models for English.

Turning to the traditionalist conceptions of creativity, one finds alternatives that are unsatisfying for other reasons. Writers such as G. H. Bantock and Mary Warnock have emphasised formal studies in the arts as forcefully as the progressives emphasise expressive activities. Bantock, like Eliot and Leavis, contends that the great delusion of progressive education is its universalisation of the creative function. "Today's educational fetish is creativity for all," he writes.

> No greater error exists in current education than the belief that creativity can come out of a vacuum. The great masters have ever followed the tradition, defined by Gombrich in the terms "making comes before matching" - which is another way of saying that art (creativity) is the product of art rather than nature. 11

While demonstrating the enriching power of formal studies in literature, music and the visual arts, and their simultaneous fostering of cognitive and affective development, he fails, however, to recognise the further enrichment which mastery of their expressive languages can provide. More significantly, his proposal that a two-tier curriculum be designed to provide a traditional programme in the arts for the intellectually and socially privileged elite, and a diluted, less sophisticated programme for the rest, can hardly be defended, in the face of evidence from education systems in Western and Eastern Europe of the success of common courses in the arts for all students. Mary Warnock, in contrast to Bantock, has made an eloquent case for the common culture curriculum in Schools of Thought, though she shares his notion of aesthetic development as almost exclusively the training of critical and receptive sensitivities. In a work where she asserts her view that the cultivation of imagination should be the chief aim of education, she states:

> I do not believe that children exercise imagination more by having a set of handbells put before them, or a glockenspiel, and being told to make their own music than by listening to music with a receptive ear. I do not believe that there is anything uniquely valuable (though it may have value) in getting children to write or draw things which are to be original. On the contrary, they may be deprived if they are not encouraged to read and to look at the works of other people . . . grown-ups, or the work of nature. The fact is that if imagination is creative in all its uses, then children will be creating their own meanings and interpretations of things as much by looking at them as by making them. 12

Martin Buber, one of the key figures in the debate, points to a middle way between the extremes I have tried to describe. Because of the extensive coverage given to Buber's ideas in Herbert Read's Education Through Art he is sometimes linked with the progressive movement. This involves a serious misreading of his position. Buber's Heidelberg Address on Creativity is largely a condemnation of progressivism, and particularly of the influence of Dewey and Freud in the spheres of aesthetic creativity. Buber put forward three main criticisms of progressive theory in this lecture. He objected, firstly, to the notion that education consists primarily in the development of individual potentialities, on the grounds that a fostering of individual growth would be a fulfilment merely of selfhood, leading to excessive self-indulgence ultimately. His conception of growth is based on his anthropological concept of man as essentially a relating, loving, reciprocating, rather than self-fulfilling, individually creative or socially-oriented being. Secondly, he rejected the progressive concept of individual freedom as a negatively defined freedom: a freedom from repression and compulsion - rather than a means to the fulfilment which is central to his anthropology; that is, fulfilment through man's capacity for love. He furthermore rejected the sentimentalised, child-indulging stereotype of the teacher associated with progressivism and proposed an alternative image of the teacher as master (or rabbi): one who gives decisive effect to his pupils' learning through his mature knowledge and experience and his power to influence morally.

These points have a crucial bearing on Buber's ideas on aesthetic education. In the Heidelberg lecture and in his essay, "Man and His Image-work", he discusses the nature of artistic origination. Its source, like that of all human potentialities, he says, is the betweenness of the inter-personal dialogic, the I-Thou: it springs from the depth of man's relation to fellowman, to the surrounding universe, to the heritage of religion, culture and art. Secondly, it is an encounter specifically between the individual self and the sensible form of the reality which it perceives; it simultaneously penetrates form and reinvokes it in the completed work of art. But this creative fulfilment lies within the province of the artistically gifted few. Buber has been widely misinterpreted on the implications of a single statement in his Heidelberg Address. He wrote:

> Everyone is elementally endowed with the basic powers of the arts, with that of drawing for instance or music; these powers have to be developed and the education of the whole person has to be built on them as on the natural activity of the self. 13

But shortly before this he adds the qualification, "dwells to some extent", and, in the words quoted, the further qualifying term "elementally" must imply that aesthetic potentiality is not fulfilled artistically in most instances. Indeed, at one point he substitutes the term "production" for creative power. "Art", he says, "is only the province in which a faculty of production which is common to all reaches completion."[14] For those unblessed with artistic power the aesthetic sense finds fulfilment largely through encounters with the existential evidence of beauty or with its embodied forms in the heritage of art. In this latter instance, education contributes to the development of the aesthetic as a receptive potentiality. This is the essential clarification to emerge from Buber's two essays.

Peter Abbs, whose work owes much to the influence of Buber, has demonstrated the practical relevance of these ideas. Like Buber, he condemns progressivists for their indulgence of individual impulses. "I think", he says, "it is just to say that they possess an effusive concept of the child, at once intolerably vague and highly indulgent.

In their minds the poet and the child become synonymous; yet the poet both expresses his culture in a way no child can possibly do."[15] Two of the defects in progressive theory which he particularly sought to rectify were:

1. its failure to stress the dependence of expression on a mastery of the formal and structural conventions of the relevant art-form;
2. its failure to combine imaginative expression with a sensitive appreciation of the cultural heritage.

Through his notion of an arts workshop Abbs has devised a highly impressive pedagogy for the implementation of these aims. A particular strength of the workshop strategy is its emphasis on the teacher's active and purposeful involvement in the whole process. The methods described for the teaching of English writing, for example, involve close and continuous assistance from the teacher in the planning and structuring of the writing, in the techniques of paragraphing, sentence-construction, grammar, punctuation, spelling and the various ordering processes necessary for the shaping of the writing into clear, mature, well-ordered prose. Similar methods are developed to achieve close and meaningful relationship between expressive activities and literary studies. And there is no pretension by Abbs that the writing workshop is a nursery for young artists. Some indeed may emerge from it but for the great majority the experience is designed to provide a deepened awareness of the aesthetic potentialities of language, an awareness which is further enriched through the simultaneous development of literary sensitivities. While there are some aspects of Abbs' work that I would want to question - particularly his suggested separation of imaginative and analytic uses of language - it seems to me that these ideas provide the most credible and the most practicable model to date for aesthetic studies in

English: one that can be extended into the visual arts, drama and music.

As it happens, they are strongly paralleled in aesthetic theory in the spheres of art and music education. Two theorists in particular, Louis Arnaud Reid in Great Britain and Elliot Eisner in the United States, have called for a redefinition of the aims of education in the visual arts. Reid, in a recent publication, challenges the notion that child art is to be valued for its spontaneity and supposed originality. He sees it as a preliminary stage in the training of perceptual and technical skills - from which artistic creativity will be nurtured in exceptional instances - but which serves in most cases to provide a preliminary awareness of the language of the particular art-form studied. He says:

> Education in how to look at pictures or other works of art is a must . . . Very few children will become artists (and these may need special attention). But educated introduction to the arts which have both reflected and influenced great human cultures, is, surely, and particularly in a materialistic world - a right and a necessity for all. But it does more than that. Participation in art is an illuminated form of living. 16

This view is reasserted by Eisner, whose work is more significant than Reid's insofar as he anticipated the current reaction against progressive ideas as long ago as the late 1960s. At that time he condemned progressive theory for its naive conception of child development, its excessive emphasis on activity, and its view that aesthetic education, rather than concerning itself with aims and attainments peculiar to the arts, became an instrument for "personal development". The teacher, he said, "was admonished not to interfere with the very personal process of the child's artistic creativity", "not to inflict her adult world view on the child's developing conception of reality".[17] Rejecting this for its evident unreality, he reformulated the aims of art education to encompass a range of objectives not highly valued by progressives: the training of visual perception and awareness, provision for active and systematic instruction by the teacher, and a highly developed appreciation of the traditions of art. Rejecting the notion of the child as artist, he called for a deepening of artistic understanding and a cultivation of the intellective and affective capacities necessary to foster that unique form of understanding. To that end he put forward a model for art education in the primary school which was based on classroom research, monitored from his curriculum research unit at Stanford University. I would like to quote from his definition of aims for the project, because it exemplifies the balance of cultural, historical, critical and expressive elements which can be realistically accommodated even in an art curriculum for the elementary school:

> This project . . . is based upon the assumptions that artistic learning is not an automatic consequence of maturation, that it can be facilitated through instruction and that a curriculum developed with clarity and with instructional support for the elementary school teacher working in the self-contained classroom can be used effectively to enable even the very young child to obtain both competence and satisfaction in the visual arts.
>
> One of the first tasks that needed to be undertaken was that of identifying some of the domains which constitute the visual arts and which were teachable and learnable for children of so tender an age. Although there are a variety of ways of staking out the field, we arbitrarily decided to identify three that seemed to us to be reasonably wide in scope and yet flexible enough so that we could alter our plans if that seemed appropriate. These three domains are the

> productive, that domain dealing with the formulation of objectives having expressive and aesthetic quality; the critical, that domain dealing with the perception of qualities constituting art; and the historical, that domain dealing with the evolution of art in human culture. Within each of these domains we have attempted to identify those concepts and principles that appear both significant and useful for handling the material within the domain. 18

There is clearly a great will amongst aesthetic theorists to avoid the extremes of the progressive and traditionalist movements of the past fifty years and to strive in their definitions of curricular aims for the kind of balance exemplified in the work of Abbs in English and Eisner in the visual arts. A similar evolution may be seen in the field of music. Dorothy Taylor of the University of London called recently for a reappraisal of current aims and teaching procedures in music; while advocating greater attention to the neglected sphere of composition, she spoke of the need for a general deepening of all the modes of musical experience provided in the classroom:

> Too much so-called listening or musical appreciation in the classroom has been diffused into anecdotal stories of the great composers or has dwelt heavily on programme music, without coming to grips with the essential lifeblood of music itself. Some teachers have made literacy such a pre-requisite to musical experience that it has often become a goal in itself, a formidable barrier between the learner and the essential quality of the musical experience. Again a curriculum which is myopically centred on performance and skill acquisition runs the danger of producing an automatic response, a kind of "barking at print" rather than providing the basis for a thinking, feeling, spontaneous re-interpretation of composed works.
>
> Lest the foregoing suggests that the writer

> does not value each of these activities, it must be stressed that, at all times, it is the relevance of the particular activity which is crucial and the imagination of the teacher in pursuing each activity in a wholly musical and pedagogic way. 19

A similar emphasis on high quality course content may be seen in the work of Bennett Reimer. Drawing on Langer's aesthetics, Reimer fashioned a curriculum for general music education at junior level for American high-schools. While giving particular attention to critical listening and appreciation, he found "that young minds from the inner city to the wealthy suburbs can perceive and enjoy music, often thought remote from their immediate interests and needs". While devising imaginative methods to train his pupils to hear music keenly, subtly and deeply, he claimed his success was due primarily, however, to the quality of the music chosen. Let me quote his comments on the selection of course content - and I would particularly like to stress his finding that children who were culturally disadvantaged could respond to programmes in which music was chosen for its artistic excellence - provided the excellence of the music was matched by excellence in teaching. His statement is full of implications for the development of a music curriculum for the masses of pupils currently not receiving a music education in our schools:

> One of the most striking outcomes of curriculum reform is the almost total lack of concern about motivation as a separate problem. Instead, the conviction has arisen that all effort must be focused on excellent teaching of significant subject matter. This focus is intended to arouse what curriculum workers have come to regard as the major requirement for successful learning - that is, interest. It is interest which leads to learning, and interest is quite different from motivation in its usual sense. One gets interest by

> dealing with important, respectable, meaningful, and fundamental subject matter, and by teaching this subject matter seriously and skilfully, with an attitude moreover of respect for the subject, one's students, and oneself.
>
> The poorer the student, the more difficult the educational setting, the more demoralized the social and educational background of the children, the more crucial it becomes that the subject matter be significant and the teaching excellent. 20

The entire creativity debate in English, the visual arts and drama points to one clear conclusion: the need for an adequate balance in curriculum content and teaching between the cultural traditions of the subject and its expressive languages. I would like to consider the implications of this matter very briefly in relation to drama, since it exemplifies with particular clarity the dangers of not maintaining such a relationship explicitly through curriculum design and classroom pedagogy. It is not uncommon to find drama listed as an independent subject in school curricula in Great Britain - though far less frequently than it used to be in the 1960s - as if it bore no relationship whatever to the heritage of dramatic literature in English, French, German and the classics, where it was originally placed. There are historical explanations for this. Cardwell Cook's The Play Way, as long ago as 1917, identified an expressive function for drama which provided a welcome respite from the dullness of an excessively literary treatment of the subject in English classrooms. His ideas on the scripting and dramatisation of prose dialogue are still widely used in English classrooms. But his emphasis on drama as activity resulted in an artificial division between formal/literary approaches and the various improvisational and informal activities with which the terms "free drama" and "creative drama" have since been linked.

The results are unfortunate both for drama as a literary discipline and as an expressive activity. The study of dramatic literature can be deepened immeasurably by the adoption of even the most rudimentary methods in theatrical presentation, while dramatic activities reach their true fulfilment in the presentation of worthwhile plays. As an instance of the importance of this relationship I would mention the remarkable advances made in drama studies at university level since interdisciplinary programmes were introduced during the past decade. These courses were designed specifically to effect a meaningful integration between theatre studies and the traditions of drama formerly studied within the disciplines of Latin, Greek, English, French, German, Russian, Italian and Spanish. I believe that such an integration should be considered for the second-level cycle also. It would introduce a new spirit of excitement into language studies and would put an end to the uncertainty as to whether drama is to be regarded as a legitimate art form or just another recreational activity. This, it seems to me, is the logic underlying the proposal in the Arts Council Report of 1979 that drama should be linked with existing linguistic and literary disciplines.[21]

As to the possible applications of all this to our current situation, I would suggest there are certain inadequacies in our provision for aesthetic education at primary and post-primary level that will need to be rectified. The section of the primary curriculum dealing with English, for instance, reflects some significant influences from the "language through experience" movement of the 'sixties. Particular emphasis is given in the Handbook to the development of expressive writing abilities without sufficient regard for the formal discipline of writing. The wording in the Handbook suggests a subordinate, and peripheral, role for the structuring and technical aspects of writing. It states:

> The primary purpose of writing is to express and to communicate ideas, and, by recording language, to give a degree of permanence to speech or thought. Of central importance, even from the beginning of writing, is the question of content, to which is subordinated concern for the technical aspects. 22

This imbalance of aims is further evident in the scant provision made for instruction in the planning and ordering of the writing, in paragraphing, sentence construction, grammar, syntax, punctuation and spelling. It is essential for the development of true linguistic competence that the need for simultaneous development of the expressive and formal aspects be explicitly affirmed in the curriculum. It is essential also that the importance of systematic instruction in all these matters be recognised and that clear and substantial guidance on this be provided in the Teachers' Handbook. It is desirable, again, that a closer relationship be developed between those sections of the curriculum dealing with literature and writing and that more attention be given, in the senior grades at least, to the cultivation of literary appreciation. Despite the wealth of available literature written specifically for the 9 to 11 age-group, there is little or no specific guidance in the Handbook on the selection of appropriate reading material and on the methods that might be used to cultivate and develop the reading habit, within and outside the classroom.

The arts and crafts section of the curriculum similarly emphasises expressive capacities, without due regard to the critical and historical appreciation of art. Again, the wording of the curriculum is highly significant: "While engaged in art and craft activities", the Handbook says, "the child is never passive. He is always doing, making, experimenting, expressing some facet of his character and personality".[23] The extent of the emphasis given to expression may be judged from the allocation of space in the art section of the Handbook: in a lengthy section of more than 100 pages, less than 3 are devoted to art appreciation, the rest being concerned with a wide range of activities such as picture-making, modelling, collage activities, housecraft, pottery, carving, bookcraft and woodcraft.

In this connection I would like to mention the findings of a research project conducted in our own department during the past five years in which a large number of Irish artists were interviewed at length on their own education and their views on the teaching of the arts. Overwhelmingly the visual artists asserted the need for greater attention to perceptual development. I quote from the draft of a report currently in preparation:

> That art ought to be primarily concerned with the development of perception rather than the development of a capacity to express was an idea to which several of those interviewed gave voice. It is an idea which might be regarded as one of the most pertinent to emerge from the study.

As a further instance of this general dissatisfaction with the cult of self-expression I can recall a conference on the arts in this building some five years ago - the papers have since been published - in which the current president of the Royal Hibernian Academy and the former principal of the National College for Art and Design spoke in the most disparaging terms of certain nationally-organised child art competitions.[24]

It is difficult to comment on the post-primary curriculum because its aims and content have not been defined explicitly. It might even be said that we do not have a written curriculum at all at post-primary level. The material in the official document, entitled Rules and Regulations for Secondary Schools, can be seen only as a collection of syllabi, in which details of course content are preceded by a few generalised guidelines on what the courses attempt to achieve. Presumably, therefore, the first step towards reform of the post-primary curriculum will be a clear and substantial formulation of aims to determine the selection of content and the teaching strategies to be used. Since I have already attempted to say what these aims should be in the particular sphere of the arts, there are just three remaining issues relating to the post-primary curriculum on which I want to offer comment. The first concerns a proposal in the Arts Council Report of 1979 that history of art be a subject in its own right.[25] Would such a division not be as illogical for art as the separation of language from literature would be for English, German or French, and would it not be in conflict with the generally recommended balance of expressive, critical and historical elements within the single discipline of art? Being unaware of the reasoning behind the proposal, I am raising it with a sense of mystification and hope that someone will provide illumination on the matter before the end of the conference. The second issue arises also from the Arts Council Report. Discussing the situation regarding music in schools, it suggests "the image of music needs some rehabilitation in the eyes of the young".[26] Considering the immense popularity of traditional Irish music, and the intrinsic importance of the indigenous musical heritage, quite apart from its popularity, a strong case exists surely for giving traditional music far greater prominence in the curriculum than it currently enjoys. My third point arises from the Document issued by the

Curriculum and Examinations Board. While it is difficult to ascertain the Board's intentions on curriculum reform in the arts - other than its welcome recognition that they be included in the compulsory core - there are some brief references to English which point suspiciously towards the communications model associated with some pragmatist schools of thought in Great Britain.[27] Such a model - were it to be implemented - would not only force a separation between the aesthetic and communicative aspects of English, but would lead ultimately to seriously diminished levels of literacy.

I want to conclude therefore by calling for the greatest possible attention to the crucial exercise of defining aims for aesthetic studies in the curriculum. The success of the curriculum will depend largely on the thoroughness with which this task is carried out. An abundance of theoretical and comparative resources is available for this purpose and it would be foolhardy to proceed without investigating this evidence closely. I feel that this task should be informed by a sense of the particular place which aesthetic studies must occupy in the curriculum. It is deeply harmful to the arts to regard them as contributing to something vaguely called "personal fulfilment". Like all other subjects, they do make such a contribution, but just as the primary aim of mathematics is to develop mathematical ability, so should the primary aim of aesthetic studies be the deepening of experience peculiar to the realm of art. Similarly, I would suggest that aesthetic studies have suffered from a facile association with hobbies and recreational activities. While it is important to acknowledge their entertainment and pleasure value, I think one must insist also on the seriousness of aesthetic studies, and on the particular enrichment of knowledge and feeling which they provide. And lastly, it is essential at all costs that we avoid one of the oldest pitfalls in curriculum reform: that we redefine the aims and content of the curriculum without providing for an accompanying development of the teaching strategies necessary to implement those aims. The Report of the Curriculum and Examinations Board does indeed recognise the importance of developing new teaching methodologies. In the arts we have the example of innovators such as Abbs, Eisner, Reimer and a multitude of others to guide us on this and on the many other complex issues involved in the process of reform. By making the most of the resources available to us we can ensure that the arts have a firm and stable future in our schools.

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DRAMA : LESS TALK, MORE ACTION

Martin Drury

One of the most remarkable, and at times dangerous, phenomena associated with the arts in education in Ireland is the earnestness and messianic zeal with which certain people have debated and practiced their conviction that the arts are a good thing, and therefore should occupy a central role in Irish education.

I feel such goodwill, and such amateur, selfless practice has for far too long deflected us away from serious consideration of the educational worth of the arts. In plain terms it has been responsible for a widespread practice whereby Mr. or Ms X do the school play because they love drama and are in the local amateur drama group and perhaps, at some time, won an award as best actor or actress. In the absence of training, particularly of drama teachers, this practice is understandable, and indeed love of drama is a pre-requisite for teaching it. Nevertheless it has the effect of placing value on an emotional sense of "what is good for the children" rather than on a carefully conceived and executed plan of what is "educationally appropriate for the children".

In my period as Artistic Director of TEAM, my colleague Tim O'Neill and I had an unwritten understanding, or 'rule of thumb', not to employ any actor-teacher who gushed at interview: "I want to work with TEAM because I love kids". Loving kids, in the sense intended here, is very beguiling but not very helpful. What we were seeking were professional actor-teachers who understood kids, or put otherwise, whose love of kids was sighted by understanding rather than being blind.

In Ireland for the past five years, beginning perhaps with the publication of Ciaran Benson's report for the Arts Council, The Place of the Arts in Irish Education, there has been a movement towards a different kind of conviction, a conviction born out of a cooler understanding of what the arts are, what the particular contribution of the arts to education might be, and how it is that the Irish education system, with its by now infamous neglect of artistic and aesthetic education, is failing to address certain fundamental aims and objectives.

I very much hope that this E.S.A.I. conference will add its deliberations to this new and growing stockpile of understanding. I think it is fair to say that the School of Education in Trinity has done more than its fair share in this regard, the Arts Council likewise, and I have every expectation that the Curriculum and Examinations Board, through its Working Party on the Arts, will produce a report that alerts educational policy-makers to the serious educational losses sustained if the arts have not a central place in the school experience of our young people.

The way this seminar is constructed exemplifies another particular difficulty, and that is the separation of the arts into different art forms. While acknowledging my brief to address that particular art form we call DRAMA, I do want to spend some little time addressing some general notions about the arts. Also, I hope that by beginning with some attention to the common ground between the arts, I can provide a common language through which I can bring you to understand what I mean when I use the word DRAMA, and what I consider its educational significance to be.

The arts are languages, or more accurately symbol systems, highly complex constructs through which we make and receive meaning. All meaning is so constructed: as I speak I am using the dominant symbol system of our culture which is verbal language. The verbal and the numerical are such significant symbol systems, that we correctly make verbal literacy and numeracy very high priorities in our education system.

The arts are also major languages of our culture, major constructs of meaning. Yet it is an incontrovertible fact that Irish education, in policy and practice, largely fails to acknowledge the value of the distinctive meanings and understandings which we familiarly call "the arts".

When I talk of symbol systems, I am proposing that the arts possess distinctive symbols and/or that the symbols of the arts operate in a distinctive way. For example, the symbol of visual arts is the visual image, and of music the sound image, and these operate in particular modes which we care to call art and music. Literature is interesting because it uses, if you like, an existing symbol, that of the word but of course it is the operation of that symbol in a distinctive mode that makes literature, literature!

We acknowledge this distinction casually when we glibly talk of poetic licence - a term that does scant justice to the skill and discipline involved, but which at least has the merit of celebrating one of the central functions of the artist: to create new meanings. We would all write cliche in the margin of any copybook with a poem which used the term "innocent as a lamb". Our accusation of cliche is meant to indicate that "innocent as a lamb" has lost power and immediacy. Equally well we admire and celebrate Dylan Thomas who in his poem "The Hunchback in the Park" describes the young lads chasing and tormenting the cripple, as "the wild boys innocent as strawberries". In front of language like that, one is left like Hopkins observing the falcon, admiring "the achieve of, the mastery of the thing".[1]

Science and Maths and new technologies discover meanings: they are a recherche or re-search, which rightly implies that the meaning sought pre-exists and what is lacking is the capacity to reveal that meaning. But revelation is not the same as creation. Art is fundamentally different from science, because it does not discover meaning: it MAKES meaning. We are all familiar with the difference between the simile and the metaphor. The symbol systems of maths and science operate as do similes: X is as Y or P is like Q. The "as" and "like" may be "equal to"; "is not equal to"; "is greater than"; "is a subset of"; "is the square root of"; "is in inverse proportion to", but there is at all times an explicit relationship between X and Y. The arts, however, operate in the metaphorical mode. X is Y; a painting is itself; a dance is its own meaning. Unfortunately the critical tools we bring to bear upon art, especially in school, are the tools of revelation. There is a way in which such doubting Thomas temerity should only be met with the poise and strength of "I am what I am".

Rather than being chauvinist about this country's contribution to modern literature, we should listen to Samuel Beckett who, when asked what Waiting for Godot was about, declared that if he knew that, he would have put it in the play. We should listen to W. B. Yeats when he states: "It is necessary to put so much in, in order to clear away so much, to explain so much, that somebody may be moved by a thought or an image that is inexplicable as a wild creature".[2]

We must have much more confidence in children's capacity to know, without forever insisting that they pay for that pleasure and that knowledge by telling anxious adults what exactly it is they know about. We must be careful, and thoughtful and cautious about building a curriculum that is about things relevant, if we only understood relevance in terms of being about life in the outward and discernible sense. There is enormous pressure now for vocational education and even pre-vocational education, for sex education, consumer education, peace education, health education, media education, environmental education. It is a pressure we would do well to understand before opening the floodgates. Even the arts have found favour within this school of thought as part of leisure education. It is an argument of which I am most suspicious and it is by far the least important argument for the arts in education because it is part of a larger argument that offers no challenge, no alternative to the drift of our society towards passive technological consumerism. It appeals to a reactive definition of education rather than a prescriptive one, at a time when more than ever it seems important to prescribe and assert certain values. Those values should surely include the promotion of what is particular and individual; the celebration of the self as a reflective entity; the realisation that relevant is not synonymous with handy or utilitarian; that life is not all about discernible experiences but includes profound inner spiritual truths; and that the great civilisations have been truly characterised by the creation of new meanings rather than by recognition, classification, and repetition which are the hallmarks of decadence.

It is important to repeat here what the Arts Council has already forcibly stated to the Curriculum and Examinations Board - that the section on senior cycle second-level curriculum in the consultative document Issues and Structures, displays an alarming disregard for the arts and for the philosophical/reflective modes of experience generally and a propensity to embrace the new technologies as some sort of educational *deus ex machina*.

I quote from the Arts Council's response to the

Curriculum Board's document:

> It is important that the Arts Council's dissatisfaction is not misinterpreted as being the result of a bias against science and technology. The Council shares the Board's view about the centrality of science to education. What is unacceptable is how this centrality dominates that of the arts once children move into senior-cycle second-level education. Such a position, if maintained, is, as already pointed out (III ii), an affront to the fundamental broad aspiration declared in Chapter 3: "the realisation of equality of educational opportunity".
>
> The Arts Council further submits that this domination of science/technology is educationally unsound because fundamentally at odds with the long-standing symbiotic relationship between the arts and technology. Whether it is cave-painting, printing and publishing, or the highly-technical twentieth century art forms of film and video, there has always been a mutual support system between man's artistic aspirations and new technologies. To create an education system for 15 - 18 year olds which lays heavy emphasis on new technologies without ensuring the artistic education of the young people is to create the conditions whereby the technology makes the person rather than the reverse.
>
> It is just the "passivity" that can be induced by new technology which most needs to be complemented by the active and creative use of materials and tools, best fostered by a good arts education. [3]

Drama is an awkward sprawling term embracing subsidiary terms we have all heard of but with which we only feel half at ease. There is "creative drama" for example, and then "drama-in-education", there is "socio-drama" and "psycho-drama"; there is "the school play" which seems to have been going on forever (and always seems to go on forever); then there is T.I.E. or theatre-in-education which is comparatively recent and is obviously different in some way from "real theatre" which is different again from "youth theatre" and "youth theatre" believe it or not, is not to be confused with, "Young People's Theatre" (Y.T.P.), nor in fact with "Children's Theatre" and finally of course and standing like a cultural colossus there is Shakespeare who represents all playwrights, living and dead, in the field of "dramatic literature".

It is all very simple really! If I can remind you of my earlier points about the arts being symbol systems, I emphasised that this meant the operation of particular symbols in particular ways. The materials of drama are the same materials we use for everyday human and social interaction. Movement, gesture, stillness, use of space, use of object, speech, tone, volume, register, silence, narrative devices, body decoration, apparel . . .

In drama however these materials which we can call SIGNS - you will be familiar with how deaf and dumb people use SIGN language and are said to SIGN or to be SIGNING - in drama these signs operate differently to the way they do in everyday life. Sometimes when we accuse someone of being "dramatic" we mean they are using signs in everyday life at the intensity or with the additional significance normally attributed to, or allowed to, the actions or expressions of drama. This quality of intensity I refer to here is of extreme importance in educational drama, because it is just this quality of experience which a teacher seeks to create for and with his/her students to break through their inertia and so promote learning.

Let me explain. I will take two examples of how SIGNS operate differently in drama from the way they do in life:

(i) Time

The dramatic moment is characterised by a quality of highly-charged intensity - everything seems concentrated: we say for example "my whole life passed in front of my eyes". What we are describing then is an intense personal and immediate encounter. Normal reference points are suspended and one is living in the NOW, in what I will call "IMMINENT TIME".

In these situations we sometimes say "I lost myself" or "I forgot myself". This is not quite true; it really means we have released or found another of our many selves.

This notion of "many selves" is important to my next example of how SIGNS operate differently from real life.

(ii) Role

In drama you can be other than yourself. I know this is an extremely simple assertion, but it has profound implications especially for education.

So much of our culture is about being yourself. "For God's sake be yourself!"; He's not himself at all"; "Get a hold of yourself"; "Pull yourself together"; "Have you no self-respect"; "He didn't know himself"; "Catch yourself on" - our language is littered with reminders of the value we place on a very stable and rooted self. Outside of the lunatic asylum and the occasional alcoholic binge where "he was out of himself with the drink", the only places where abandoning one's self are tolerated are the church where one is encouraged to "offer oneself to God" and the theatre or drama session where there is virtue and reward in being another.

There are many signs at work in drama. I have chosen

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these two to try and describe the particular significance of drama-in-education. Drama-in-education is the use of sign (and not just the safe limited signs of chalk and talk so beloved by most teachers) for educational purposes.

It is important to underline at the outset that we are not talking about the creation of a dramatic presentation or performance. No - the benefits here are for the participants; there is no audience. We are making not a play, in the theatrical sense, but more in the sense of childhood play. The teacher's role will be to guide that play so that the children do not simply skate along the surface of their own story, pursuing a "what happens next?" approach, but rather the teacher enables them to plummet deep into feeling and meaning and burrow deep into themselves and the story or action for the personal resonances lying way below the surface of their own actions.

I call these drama situations "imagined realities". They are, so to speak, a half-way house between unstructured fantasy, on the one hand, and as yet uncomprehended reality on the other. I remember, as a child, being enormously impressed with the notion described in my Roman history of the pedagogue taking the child by the hand and teaching him through the experiences they had in the street, in the forum, outside the Senate house, etc., etc. Obviously, given the complex society we inhabit and the many demands upon education, such a notion is impossible though its vestiges remain in school tours to museums, wax-works, folk parks, environmental centres and planetaria. For the most part, however, school-based learning is an abstraction from reality and given form in books.

Books SIGN in a detached manner, they are a cold medium: it is "once upon a time", "fado fado". Drama is hot. It is now and it is you. It is imminent time. In an imagined reality the children make their own meaning, guided by the teacher. To guide well the teacher must be able to sign well. If the learning is to emerge through exploration rather than from an imposition of the teacher's truth from without, then the teacher must be able to abandon the register of "It's so because I say so", or "I'm telling you". As Dorothy Heathcote cajoles us:

> What of teacher as a catalyst? (When I switch on the red light "it" has begun.) As reassurer? (Don't worry, put yourself in my hands.) As devil's advocate? (That's surely not true.) As good listener? (Good idea, what happens then?) 4

To push that use of register further is to open up the immense educational opportunities afforded by the use of role. What the teacher in role can achieve is a thorough exploration of the children's point of view. The role played will have a point of view which invites or challenges the children to adopt a point of view; or it places them in a position where they must choose from a range of points of view; or it demands of them that they alter their points of view as the dramatic experience develops and new understandings are achieved.[5]

There is a constant debate about whether drama-in-education is a subject or a system. It is not a distinction I fully understand. I think what people mean is that if I am using drama-in-education in a history-based activity am I serving history or the children's selves? And of course the answer is both. Because, as with all art, drama is the interaction between self and art object or art experience. The self does not pre-date the experience; it is in the experience that the self is made. Drama-in-education is learning from the inside out; it is the making personal and present what would otherwise remain impersonal and distant. This immediacy and presence of the art experience relates intimately to the notion described earlier that art means itself. The arts are not a conduit of pre-existing experiences. R. D. Laing expressed it well when he described Nirvana thus:

> As one gets through it
> one realises that the
> gate one went through
> was the self that went through it.[6]

Good drama-in-education is simply good education. The children make the experience and simultaneously, not consecutively, they are made by that experience. I am firmly of the belief that all teachers should be equipped with the skills of drama-in-education. Why? Because these skills are not a set of tricks, of body language, of ways of talking or acting funny. This is not acting; it is being yourself or all of your selves. They are in fact attitudinal skills. To learn drama-in-education at teacher-training college should be to learn how to teach well, that is, how to enable children to take responsibility for their own learning.

I would like now to consider briefly what I earlier described as the colossus of Shakespeare in the drama experience of nearly all post-primary students and teachers.

I have two prejudices to confess in advance. Firstly, I consider Shakespeare to be the greatest English language playwright ever and I have spent an inordinate amount of time and money in Stratford-on-Avon over the past fifteen years. The second prejudice is perhaps more correctly a conviction, and it is that the man and what he represents wield an unhealthy and unhelpful influence over the school curriculum. Put a gun to my head, and I would say he should not be taught at post-primary level at all, with the possible exception of Leaving Certificate honours level.

I would like to try and justify this second prejudice. To do this I want also to shift my perspective on the curriculum from the inside-out thrust of the last section on the internal pedagogy of drama in education, and adopt a more socio-political stance vis-a-vis dramatic literature. Edward Bond, the contemporary British playwright, in a poem about Shakespeare reminds us:

> He is not an academic,
> His written words
> Are the echoes of speech
> His learning is prefaced
> By experience
> He does not come from school
> He goes to it. 7

The truth, as it obtains in the Irish education system at any rate, is otherwise; Shakespeare is the lord and master of a literary tradition which dominates the subject we call English. You can see already how almost inevitably I have stopped talking about drama in the "active sense" and started talking about it in the "talk" sense, that is to say, about literature. It is one of the minor scandals of second-level education that there is no drama in the lived experiential sense of that word. There is little distinction in the teaching, learning and evaluation processes between poetry, short-story, novel and play. All are fed through the mincing machine of critical analysis and their constituent wormy parts analysed and anatomized as theme, imagery, form, character, plot, rhythm, etc. The number of times the children talk and write about the story when in fact they mean the play should alert us to the fact that many of them leave school with little or no understanding of how fundamentally different a play is from a novel. Stage adaptations, T.V. versions, and the inevitable plot synopses in the various notes and aids contrive even further to blur those distinctions and to distance the child from the primary experience of seeing or reading and enjoying.

For most children there is a cultural schizophrenia induced by their direct experience of literature which is that it is dull, abstruse, old-fashioned and often inaccessible, and on the other hand the constant cultural reminder, institutionalized by hours in the classroom, that Shakespeare, Milton, Chaucer, Dryden, Pope, Keats, Shelley and others are good, nay the best, examples of our English-language literature. There is a whole series of rather dangerous cultural assumptions at work here. In the first place, are we perhaps back to the notion I described at the very beginning of my talk when I cautioned against well-meaning notions of cultural "goodness" and proposed the distinction between what was "culturally the best" and what was "educationally the most appropriate"?

It is precisely because access to the arts and the opening up of the trunk of our cultural heritage to our young people seem such pure and generous and faultless aims, that they pass unexamined. Except sometimes by a mind like Peter Brook who, observing the cultural commandos at work in the classrooms and factories causes us to reflect:

> These commandos aim at evoking interest, breaking down barriers, making friends. This is splendid, stimulating work. But behind it lurks an issue perhaps too dangerous to touch - what truly are they selling? We are implying to a working man that theatre is part of culture - that is to say, part of the big new hamper of goods now available to everyone. Behind all attempts to reach new audiences there is a secret patronage - "you too can come to the party" - and like all patronage, it conceals a lie. The lie is the implication that the gift is worth receiving. Do we truly believe in its worth? When people, whose age or class has kept them away from theatres, are lured into them, is it enough to give them "the best"? The Soviet Theatre attempts to give "the best". National Theatres offer

> "the best". At the Metropolitan Opera in New York in a brand-new building the best of Europe's singers under the baton of the best Mozart conductor, and organised by the best producer, play The Magic Flute. Apart from the music and the acting, on a recent occasion the cup of culture was really filled to the brim because a splendid series of paintings by Chagall were also displayed scene by scene at the same time. According to the addictive view of culture, it would be impossible to go further - the young man privileged to take his girl to The Magic Flute reaches the pinnacle of what his community can offer in terms of civilized life. The ticket is 'hot' - but what is the evening worth? In a sense, all forms of audience-wooing flirt dangerously with this same proposition - come and share in the good life which is good, because it has to be good, because it contains the best. 8

This notion of what is best goes hand in hand with a highly conservative definition of the arts as being the repository of our great civilising influences. To read Shakespeare, the argument goes, and to have our children read Shakespeare, is to keep them in touch with certain immutable cultural values. Literature has taken upon itself, particularly in this country, the role of some sort of cultural Ark of the Covenant, lovingly constructed from the wood of Lady Gregory's famous tree and hallmarked by the initials WBY and GBS and SO'C. Dramatic literature, we remind ourselves, citing Congreve, Farquhar, Goldsmith, Sheridan, Boucicault, Wilde, Shaw, Yeats, Synge, O'Casey and Beckett - and that's just our first team - is a constant reassurance as to our being civilians when our nearest neighbour would wish us seen as barbarians. This highly conservative notion of the arts is embraced and fostered wholeheartedly by education precisely because our understanding and practice of education is founded upon similarly conservative values. Our teaching of literature is radically unsound because it is based on a premise of opening up the child to the values of literature. What is missing of course is the complementary relationship of opening up literature to the values of the child. I hope I have clarified earlier the complex symbiotic relationship between _self_ and art object which occurs when we look at a painting, hear a piece of music, or go to a play. To concentrate exclusively on one side of this relationship is to create a major dysfunction. Yes, of course there is an immense value in the cultural context of the play or poem, but there is also the personal context of the child, which is itself part of a larger contemporary social and cultural context. In other words, for most, though not all, kids six years at second-level English class produces not the effect we hope of binding them into their cultural inheritance, but rather of convincing them that the arts, and literature in particular, have nothing to do with them, and do not address their _selves_. Not only do we thus disinherit them from the past, but by the syllabi we design we also disinherit them from much of their contemporary cultural tradition. They have little or no sense of the activity of making theatre; they have no experience of how theatre is the play of society, and how, like all play, it is both educational and enjoyable.

They have for the most part no contact with the contemporary playwrights of this country who in many senses are writing for and about them:

Neil Donnelly in	_The Silver Dollar Boys_
Tom Murphy in	_On the Outside_
Bernard Farrell in	_Then Moses met Marconi_
John McArdle in	_Jacko_
Frank McGuinness in	_Borderlands_
Brian Friel in	_Lovers_
and Graham Reid in	_The Hidden Curriculum_

The relationship between artistic education (making art) and aesthetic education (receiving art) is a crucial one. For what we are considering here it is even more complex, because there is not only the relationship between making theatre and seeing theatre, but also that between seeing theatre and reading a play. Across the water, hundreds of theatre-in-education companies, young people's theatre companies, and youth theatres as well as the school drama classes and clubs are making their own plays through discussion and research and improvisation and scripting: plays about contemporary issues certainly, but also plays which reconstitute myths and legends, and plays which examine particular periods and figures in history.

There is a dreadful lack of clarity - because there has been no debate - when it comes to drama at second level in this country. At the moment the advice of teachers is to get the children to "read the play aloud" or better still to "act it out" and to try and bring the kids to see it being performed.

Teachers are being badly abused in this advice and by suffering the daily consequences of such confused curricular thinking and provision, are being made to feel inadequate about something for which they receive no training. Drama and theatre on the one hand, and dramatic literature in the poetic idiom, on the other hand, are two distinct experiences and activities. By confusing one with the other, as we do at present, we do neither well.

When we ask ourselves, as ask ourselves we must, what the role of education should be, confronted with the prospect of long term unemployment and a considerably disaffected young population, are we really going to propose "new technology" and "leisure education" as our considered response? "New technology" and "leisure education" sounds suspiciously like bread and circuses.

When the young people tell us directly that they are bored or disaffected, or when they tell us indirectly by solvent abuse, attacks on the elderly and joy-riding, we cannot respond "but you never had it so good". We must listen to what they mean. The pornographic self-indulgence and stimulation they seek is really a desperate cry for inner stimulation. They are tired, as a recent survey in the borough of Lewisham showed, tired of being offered the pap of video games, pool-halls, discos and table-tennis. They are striking against the dysfunction I mentioned earlier, indeed the loss of function which they have inherited.

As they sprawl in front of three hours of MT-USA, eyes and ears glazed into a stupor by videos and commercials which remind them of what they do not have, it is up to us, as parents and educators, to interpret the signals below such passivity.

Jeremy Seabrook, teacher, playwright, social worker and author interprets the apathy, the passivity, and the occasional bursts of aggression thus:

> If you have been born into a world, in which you have no purpose but to long for all the things that have been held out to you as desirable from the moment you open your eyes; if you have been nurtured on getting, having and possessing things, and not on doing, making or giving anything of yourself; if you have grown to the stimulation of appetites and the suppression of your abilities, of course you feel that something is missing. But because of this lopsided world which is nevertheless so pervasive and intrusive, you cannot conceive of an alternative. What room for alternative visions is there in a society which parades its spectacle of manufactured things, of goods and commodities, as ours does? There is something unbearably poignant about all those young people hanging around the shopping centres, the malls and precincts, being chucked out by security guards because they don't have the money to buy. And what is it that we need so compulsively to buy, if not consolations,

> compensations to make up for having no other social purpose? The growing of so many of our young people has been as an aspect of the marketplace: it is as though human development has become a sort of by-product of selling things. The clamour and insistence of the marketplace becomes a primary influence in their lives; and as such, it overrides - especially in those children who don't have the security of a loving anchor in their families - some of the restraining influences that come from elsewhere. In other words, it is the most vulnerable who are the most at risk. Needless to say, among the poorest and least resistant groups in society, this creates a grotesque distortion in young lives. But it hasn't been properly acknowledged for what it is: a socially determined evil, not a question of personal morality. [9]

In going down the road of superficial relevance, there is a grave danger that we will make education too, merely "an aspect of the market place".

The arts are not a social panacea. They are important to education however for themselves and for the values and attitudes they promote. The arts celebrate individuality, they promote the particular, they enable the young person to make his own meaning of the world, they encourage action which is informed by reflection.

It is in those terms that we must understand the arts, as languages of our culture, constructs of our shared meanings. To continue to perceive the arts as superficial skills, social accomplishments like piano-playing or embroidery or sketching is to promote the polite ignorance of Jane Austen's mother figures who believed that if their daughters could paint, play a musical instrument or discuss fine literature, then they would be marriageable.

If that was all the arts meant, then they would deserve the bare tolerance they receive in certain of our schools. The truth however is otherwise, as I hope I have shown. As the president of Malcaster School in Minnesota recently declared:

> When we look at the arts, we are looking at much more than the arts, we are looking at what a concerned society should do in improving the basic human condition. I am increasingly convinced that education, as it is constructed now is incapable of doing all that we want done. We're nibbling at a pillar of the structure, while in reality a much more massive attack on a general societal condition is called for.

In short - less talk, more action!

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OUT OF TUNE WITH REALITY : MUSIC AND THE SCHOOL IN IRELAND

Micheál Ó Súilleabháin

In boarding schools in Victorian Britain, musicianship in a young gentleman was regarded as dangerous, freakish, effeminate and conducive to immorality.[1] Such beliefs die hard, and my own experience during an Irish provincial town schooling certainly bears this out. I created local history not only by breaking through the block of silence which the school imposed on all creative sound through my discovery that *music*, of all things, was actually an examination subject in the Leaving Certificate: but also by insisting on entering this examination with the help of an outside teacher. That was in 1969, and I was the first in the school's history to have sat an official music examination.

Having graduated from University College Cork in 1973, I returned to that same town as a music teacher within the vocational education system. The first indication I got that the idea upon which school music is based was "out of tune" came during the final class which I gave to first-year girls. It was the end of *my* first year as a music teacher, and having spent that year introducing Mozart and Stravinsky, along with the usual dose of music notation to my reluctant students, I had decided that this class should be turned back on itself in the form of invitations to entertain with song and story. Things were proceeding as expected until a set of twins in the first row were eagerly called upon to sing by their classmates. I might mention in passing that their surname was Fortune and that they were affectionately known to all as The Miss Fortunes! But their singing was neither misfortunate nor unfortunate.

I immediately recognised the vocal timbre as that of a certain form of contemporary pop music: what in musicological terms I was later to discover was called 'Afro-American'. The clean-cut impeccably performed ornamentation would, I knew, be beyond the capability of an average-schooled classical musician. There was a sensitivity to intonation which showed itself in the use of microtones and glissandi. My own feeling of being let down can only have been matched by the feeling of alienation which these students must have experienced in the face of my doctrinaire patronising approach. Since then I have increasingly come to the realisation that no child enters school without already possessing a music (often latent) of his or her own to a greater or lesser extent; that music is essentially acquired in the same way as language; that the function of the school in the area of music should be to allow the student to express himself creatively within his own mode of music and, most importantly, to introduce the student to at least one music mode other than the one he naturally espouses.

> From a musical point of view, the prime concern in education would seem to be the acquisition of competence in one's own music, the tradition inherited, cultivated, and transmitted by the members of the socio-cultural continuum into which one has been born, just as, from a linguistic point of view, the prime concern is acquisition of competence in one's own language. 2

But there are two factors which must be taken into consideration here: firstly, that one mode of music more than any other has historical associations with the concept of school as we know it in the Western world (I am speaking of the place of European art music within the school, and the traditional belief that it is the only music really worthy of study); and secondly, I strongly believe that our knowledge of the nature of music itself, in the widest sense, is over a century behind that of our understanding of language and its processes. We in Ireland suffer more than any other Western European nation from this lack of knowledge because of our dual inheritance of a thriving native musical tradition as well as of a European one. On top of all that, the exciting but complex issue of popular music in its many forms appears to make an already challenging position impossible. The challenge facing Ireland in the field of music education is such that if we succeed in reconciling the opposing forces in our musical life, we will have hit upon a formula which may well prove to have an international significance.

In musical terms, contemporary Ireland is the envy of Europe. Our hesitancy in contributing to the wider European musical art tradition is more than compensated for by our thriving traditional music. Yet, for many of us this is not enough. Our imperial/eurocentric music educational system propagates the view that Ireland is musically uncivilised as evidenced by our lack of a composers' gallery of the past. The fact that the few provincial names that we call on come from Anglo-Irish ranks only serves as a further embarrassment. The second level student opens his music-history book (often the Irish schoolbook industry's rehash of an outdated British colonial educational viewpoint) to be confronted with French, German, Italian, British and even Anglo-Irish names, but the great embarrassed silence is observed on the question of the musicality of the Gael. While the courts of Europe were patronising music of a most literate kind, the native Gaelic courts (with their rural base) were patronising musicians who were "illiterate" (sic). And here we come face to face with the myth of musical literacy, where the validity of non-literacy is neither explained nor understood. Why is this? Because in Ireland to be universal can mean to aspire to a wider British viewpoint. Those who recognise this as provincialism aspire towards a European context, and linguistically this is more than sufficient. But musically, we must go further to embrace the globe if we are to spark the necessary fire of self-knowledge. To Irish ears, a first meeting with Javanese Gamelan, Japanese Gagaku, Gambian Kora or Hindustani Raga can be like a shower of cold water, or like the completion of an electrical circuit. Everything, including Mozart, falls into place relative to an Irish perspective - or to put it another way, Ireland finds its place in a world musical cosmology.

But apart from this tripartite British/European/global approach, there is a fourth possible musico-cultural ideology - that of the introspective inward journey which comes unstuck and results in the putting of nation before human creativity. This is provincialism of a different kind. Now the time is ripe in Irish musical education for co-operation of an unprecedented nature: for a casting-aside of a restrictive nationalistic approach on the one hand, and of a dated elitist musical ideology based on a worthless myth of high culture on the other.

Let me put it in plain terms: how many advocates of traditional music will stand up for the right of a young Irish student to specialise in, for example, Italian baroque music, or the music of the Spanish renaissance? In such a way do we betray our provincialism. Or how many advocates of European art music in Ireland will defend the right of an Irish student to specialise in uilleann piping for its own sake - not just because it is clean Irish entertainment, even if it is not real music. In such a way do we betray our cultural self-contempt.

There have been many indications over the past decade that music within the school was in trouble - perhaps the earliest one which dealt with the matter effectively was Robert W. Witkin's book The Intelligence of Feeling published in 1974. It is an extensive study of some thirty-six secondary schools in London, Bristol, Cambridge and the south-west of England in which English, drama, art and music were looked at; music was identified as being the subject in the greatest difficulties.

> Of all the arts that we have looked at in schools, music is apparently in the greatest difficulties. Despite a long and in places, impressive tradition, it repeatedly fails to obtain a general hold on the musical development of the majority of pupils and is considered by many pupils to be irrelevant to anything that really concerns them. Achievements with choirs and orchestras made up of the "musical minority" brighten the scene here and there, providing sustenance and balm for the class-weary teacher. However, this gratification is relatively short-lived, and the teacher must sooner or later face the fact that in all probability he has not found the secret of making music a fulfilling experience for other than the "musically inclined" minority of the pupils. Everything seems to conspire to make the situation of the music teacher as difficult as it can be. He is balked by prejudice on the part of both staff and pupils alike. He is inadequately resourced and must continually listen to complaints about noise but, perhaps most serious of all, his training does not usually equip him to deal with music for classes in an effective way nor does it encourage him to exploit the wide variety of possibilities for music making already developed in avant-garde centres, for use in schools. The music teacher is often condemned to work out his existence in the secondary school as the martinet on the other side of the music stand, hiding his own sensitivity to protect it from further abuse and thrusting the rudiments down reluctant throats. He does his duty grimly like a soldier in an unpopular war, "the unwilling doing the unnecessary for the ungrateful". Often he loves music too much to be happy about it. 3

So much for the teacher's position; what of the pupils? Some five thousand pupils of all ages in six of the secondary schools selected by the researchers for intensive study were asked to construct their own hypothetical curriculum in a controlled test. Music turns out at the bottom of the pile. An average of 78% of the pupils do not devote even one of their school periods to it, while drama, art and English turn up somewhere in the middle of the list:

> Music is on the whole rejected by the majority of pupils in secondary schools and is in any case poorly provided for within the curriculum. The pupils' evaluations reveal it to be in a very poor position in relation to Art and Drama. It is not that they regard it as an academic subject but rather as one which, in their terms, is a failed art subject. They feel on the whole that it encourages participation and self-expression strictly on its own terms and of a kind which does not engage them. 4

There were two notable exceptions to the other schools in Witkin's survey. The music departments in these appeared to adopt what on the surface seemed to be opposite approaches - in the one case what might be termed a modern, free, creative approach; and in the other, an approach more traditional in style but with the difference that the teacher had found a balance between her own strong ideas about music and her complete tolerance of the right of the pupils to different musical tastes, if such were the case. Both approaches are, of course, strongly pupil-centred: the latter approach succeeded in raising music from the bottom choice to the third from the top in the pupils' chosen curriculum, following only vocational crafts and physical education.

If the answer then lies in the ability of the music teacher to link his/her educational policy to the reality of the pupils' socio-musical life, what kind of a challenge is to be faced? My own interest in the diversity of contemporary musical expression in Ireland led me to attempt a socio-historical analysis of music in Ireland over the past three to four hundred years. The study is in the nature of an overview, and the results are available in the forthcoming issue of the United Kingdom Journal of the International Council for Traditional Music. Entitled "Music in Ireland since 1600 : a Typological Model", it makes use of some diagrams to illustrate the points being made, and these are reproduced here[5] (Figures 1 - 4).

For all of this complexity, however, the overall situation can be seen to revert to the three main headings of European art music, Irish traditional music and popular music in its many forms (including, as already shown, popular forms of both the European art tradition, as well as of the Irish native tradition).

The art-music establishment, of course, still organises its affairs in such a way as to betray its continuing belief that popular music is sub-human while traditional/folk music is sub-literary. A German musicologist, Peter Wicke, quotes one current view as stating:

> . . . the continual background noise of pop and beat music around us . . . (is) neither able nor willing to enhance and enrich human relationships, the common life or the enjoyment of the individual.

Wicke goes on to comment on this statement:

> The reasons for such scepticism lie in conservative attitudes and an idealist concept of culture. Against the background of a generalised concept of music based solely on what has traditionally . . . been identified as "art" or "serious" music . . . large parts of musical reality are necessarily seen as marginal in significance: as commercial deformations of art, on the one hand, and as folkloric forms anticipatory of art, on the other.   6

Now where does the "Music and Musicianship Curriculum" for Irish schools stand in the face of all of this? In

FIGURE 1 Music in Ireland since 1600 - basic version showing Model 1 (17th/18th centuries); Model 2 (18th/19th centuries; Model 3 (20th century)

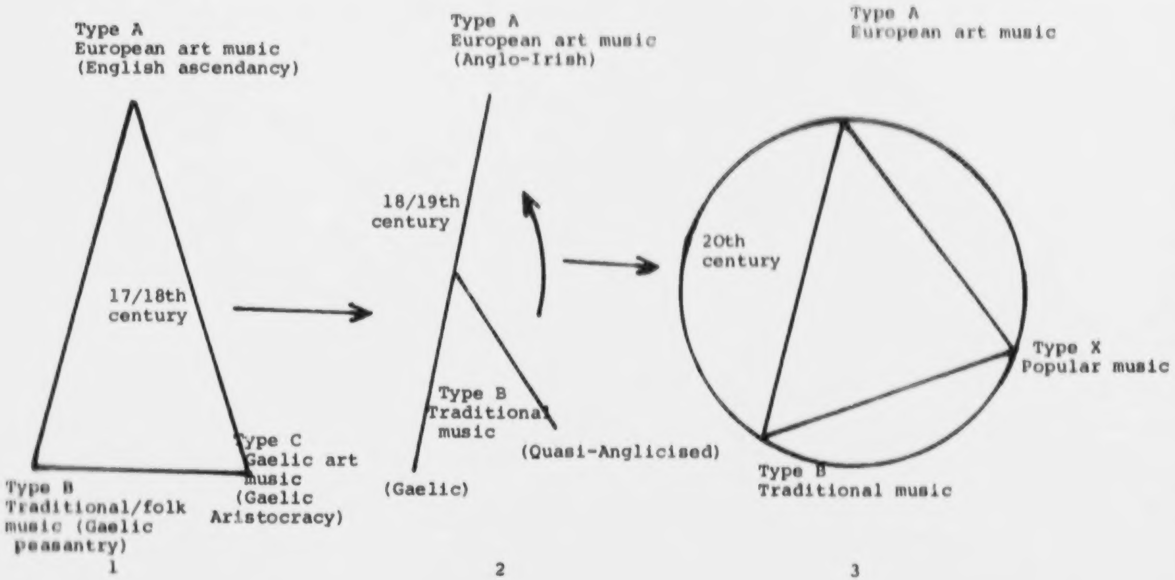
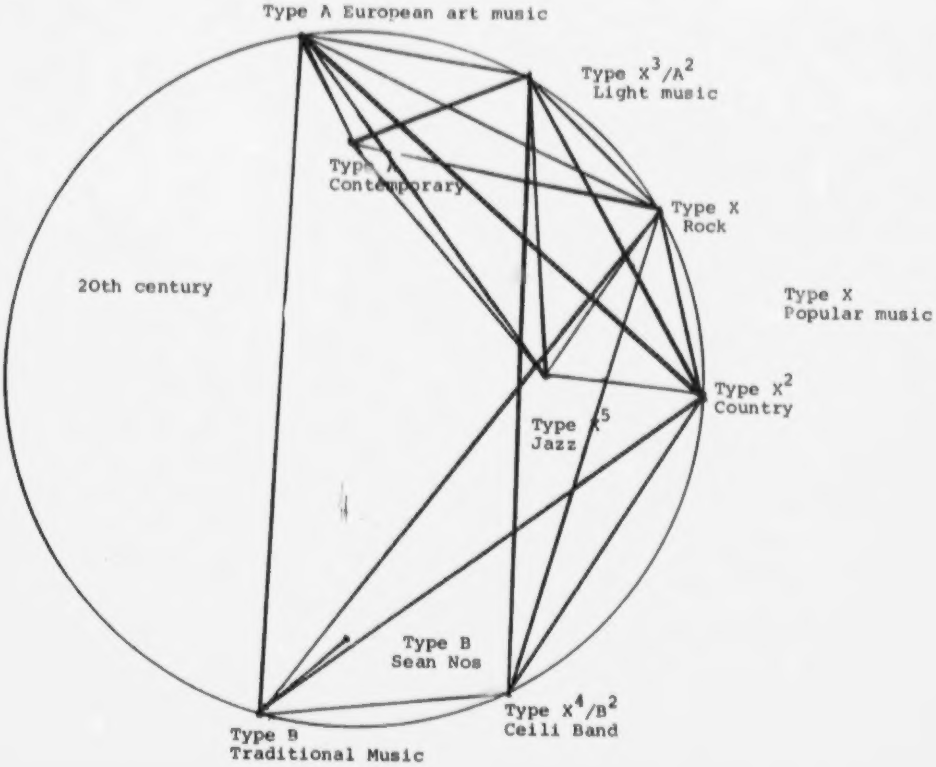

Type A
European art music
(English ascendancy)
17/18th century
Type B
Traditional/folk music (Gaelic peasantry)
Type C
Gaelic art music
(Gaelic Aristocracy)
1
Type A
European art music
(Anglo-Irish)
18/19th century
Type B
Traditional music
(Gaelic)
(Quasi-Anglicised)
2
Type A
European art music
20th century
Type X
Popular music
Type B
Traditional music
3

FIGURE 2 Some music varieties in 20th century Ireland - Model 3A


Type A European art music
Type X^3/A^2 Light music
Type A^2 Contemporary
Type X Rock
Type X Popular music
20th century
Type X^2 Country
Type X^5 Jazz
Type B Sean Nos
Type X^4/B^2 Ceili Band
Type B Traditional Music

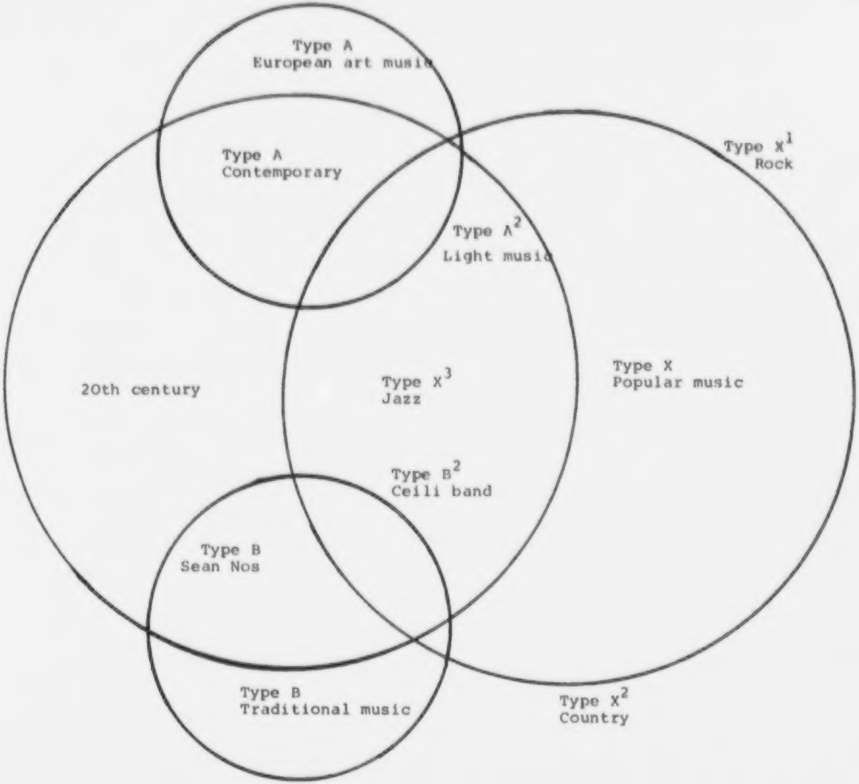
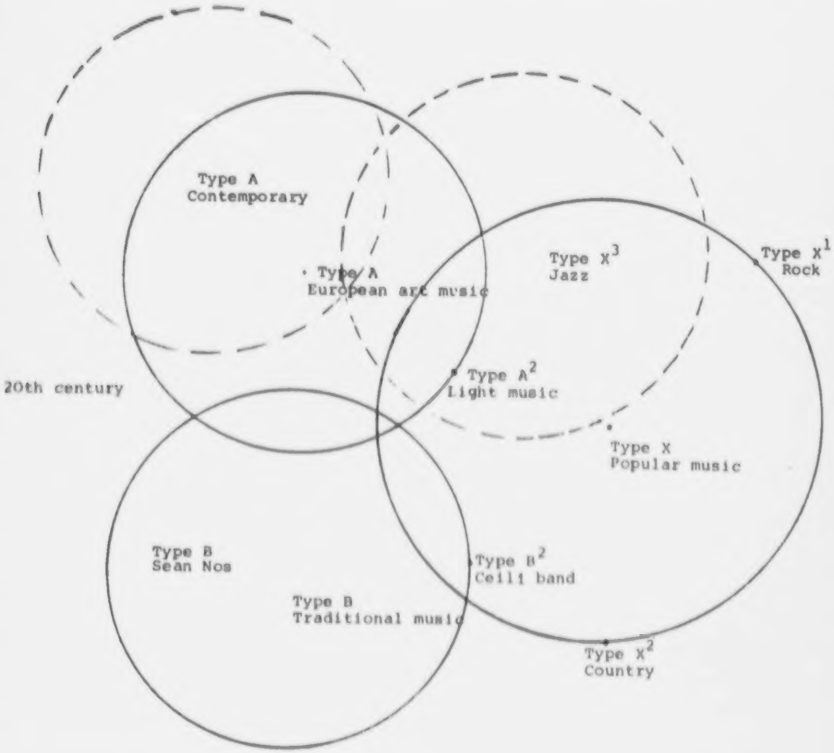


FIGURE 3 The concept of musical centre 1 = 20th century, Model 3B

Type A
European art music
Type A
Contemporary
Type X^1
Rock
Type A^2
Light music
20th century
Type X^3
Jazz
Type X
Popular music
Type B^2
Ceili band
Type B
Sean Nos
Type B
Traditional music
Type X^2
Country

FIGURE 4 The concept of musical centre 2 - 20th century Model 3C


Type A
Contemporary
Type A
European art music
Type X^3
Jazz
Type X^1
Rock
20th century
Type A^2
Light music
Type X
Popular music
Type B
Sean Nos
Type B
Traditional music
Type B^2
Ceili band
Type X^2
Country

attempting to give my perspective on music and in the curriculum, I have found it necessary to tackle the overall context of our musical life. I have avoided any detailed comments on the curriculum as it now stands, not because I believe it is beyond improvement or beneath contempt, but because I believe that we must find a way of "changing course" without sinking the ship. While it would be futile and arrogant to attempt a restructuring of the curriculum in this article, I would like to conclude by suggesting what I feel may be the key to any worthwhile future growth. I am speaking of that aspect of the science of musicology which has over the past few decades contributed most dramatically to our knowledge of world music - namely, the study of ethnomusicology with its emphasis on traditional music forms around the world.[7] It is no longer feasible to confine the music curriculum to the art and/or folk/traditional musics of Europe. To continue to do so would be to create as unbalanced an attitude in the student's mind as a geography class would which ignored 90% of the earth's surface. Again, such an element in an Irish curriculum has an added significance in that, of all European nations, Ireland stands most to gain culturally and intellectually through a linking of its own experience in traditional music with a knowledge of how other traditional musics operate. There is, of course, the necessity of finding a balance between knowing a lot about one music and a little about all music, but this could be achieved with the aid of a specialisation programme which allowed for a realistic pupil-centred development of musical skills and understanding in the area of most concern to him/her. Furthermore, our curriculum planners have more to learn than they may realise by an examination of how some non-western nations have approached the problem of integrating their traditional musics within the school system. India, for instance, is a good example of another post-colonial nation which has successfully integrated its aural-tradition classical music with the school at all levels:

> One of the chief benefits of a familiarity, even if rather scanty, with other musics is that it leads to a better understanding . . . of one's own music. Indeed, if one is honest with oneself, one may discover for the first time what is one's own music through listening to other musics - just as one can arrive at an understanding of a word through its definition by other words in the dictionary.[8]

In my opinion, the responsibility for the present deadlock in music education does not lie with the politicians, the government Department of Finance, the Arts Council, the government Department of Education, nor least of all does it lie with the music teacher who has perhaps the most unenviable task in today's second-level school - but instead it rests firmly in the court of our third-level institutions, and in this case, in our university music departments. It is here that the system regenerates itself and the unreal cycle begins again.[9] But even if this is a logical follow-on from what has been said, it moves outside our present discussion and any elaboration of this theme must await another opportunity.

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EROTICS, NOT HERMENEUTICS

Tom Mullins

i

In Greek mythology when Apollo, the God of intellect chased after the desirable maiden, Daphne, just as he laid hands on her she changed her nature; she became transformed from living flesh and supple skin into the hard wood and glossy foliage of an olive tree. Considering Apollo's original ideas about their relationship he hadn't much return for his efforts!

On the other hand when the God, Dionysius, sought to cultivate a relationship he relied on his ally, Eros, who nurtured response in the desired one by creating a context of sensuous promise, joy and fulfilment. Dionysius suffered few disappointments!

I was reminded lately of the idea that myths embody recurrent patterns in human life: the Apollo-Dionysius polarity mentioned above would be one such pattern. I heard the Irish playwright, Tom Murphy, relate that after an "opening night" of one of his plays in London he overheard two respectable ladies discussing the production. One lady held forth repeatedly with the question "What does it mean?". While agreeing with her companion about the quality of the sets, the acting, and the direction she still querulously inquired "What does it mean?" At which point her friend burst forth in her best "Home Counties" accent "I don't care what it bloody well means, Sandra dear, but didn't you recognise the feeling". Tom Murphy asserted that it was this kind of relationship, "the recognition of feeling", he always sought to establish with his audience: he was less sure about establishing definite meanings in their minds.

This paper speculates on the question of how we can best nurture a relationship between the student and literature in education. For too long we have been disciples of Apollo, it is time to see whether Eros can be of some help.

ii

"A corrupt transaction" was the phrase Eavan Boland used to describe the teaching of literature in the Irish educational context. She described it thus because at heart the teaching of literature should liberate the pupils into new areas of experience, revealing to them a finer sense of human life. In practice literature was more an instrument of repression, an alien mode of experience emanating from a cultural establishment and presented in such a manner which denied the student any genuine context for his own sensibility.

The usual reasons given for the failure in the teaching of literature are the out-dated syllabus and the examination system. Few would deny the validity of these assertions at second level. This paper is, nevertheless, not going to step on that particular treadmill, instead I wish to view the situation from another perspective.

Literature is failing to have the impact it should have in our schools and colleges because many teachers (at all levels) are unsure about the nature of literature itself and its role in education. It is frequently a failure in understanding, a lack of personal vision, the absence of any philosophy of literature that causes the fundamental problem in the classroom. Teachers without a personal commitment to literature, without a vibrant faith in its potential should not be teaching English.

For without such a commitment and faith one very quickly becomes a functionary of "the corrupt transaction".

As George Steiner reminds us,

> To teach literature as if it were some kind of urbane trade, of professional routine, is to do worse than teach it badly. To teach it as if the critical text were more important, more profitable than the poem, as if the examination syllabus mattered more than the adventure of private discovery, of passionate digression, is worst of all. [1]

He goes on to say that whenever we enter a room to give a class or a lecture on Yeats or Shakespeare: "There are two ways, one is to suffer: the other is to become a professor of the fact another suffers".[2] In other words we must teach literature as a person, a feeling, thinking, human being not as a pedagogue or an academic; to do otherwise is to betray the unique role which all teachers of English have to play in education.

On those of us who teach English, on those of us who train teachers of English, lies a special responsibility. Our subject, because of its position in the curriculum core, is the only one of the humanities where there is ample time to nurture and permanently influence "the quick of another human being"; we can as Henry James remarked contribute uniquely "to the atmosphere of their souls". Unfortunately in much English teaching the particular atmosphere necessary for such a creative encounter between teacher, pupil and literature is replaced by an opaque fog of philistine attitudes and procedures.

At primary level the objective of literacy seems to be perceived in a very limited way. As a result all reading experiences tend to be functionalised, pressed into the service of simplistic comprehension exercises and the learning of spellings. The class-reader is reduced to a language resource and is seldom used to introduce the child to the rich realms of imaginative play with language, to literature. The prime test of literacy is not the minimal ability to decode printed symbols but the ability to read with personalised interpretative enjoyment. Thus to reduce all literary experiences to the most boring and mundane tasks is to do irreparable damage to the child's attitude to language and to literature. Through an enjoyable reading of literature in these formative years the child will begin to develop a sense of the mythic power of words and so start on the long trek to the truest form of literacy - the literacy of the personal imagination.

In the secondary school the atmosphere is thickened by the historical emphasis of the syllabus and the academic-type examination system. But teachers of commitment can find time to lighten this burden with more accessible literary experience or at least a personalised approach. The non-relationship that exists between the average secondary school student and the literature they read in school was brought sharply home to me recently. I was involved in a seminar concerned with Leaving Certificate texts, one of which was Wuthering Heights. I asked this bright young lady "Did she fancy Heathcliff?" She looked at me in absolute shock and blurted out, "My God, I never thought of him like that before".

I just cannot imagine what the teacher of English in that young lady's school was doing with Wuthering Heights. The most passionate love story in English literature had not touched in the most obvious way the imagination of a lively adolescent girl whose fantasies must have dwelt on the subject of love and men occasionally!

Finally at third level while there is little doubt that literature is being taken seriously it does seem that the excesses of structuralism, post-structuralism and deconstructionism at undergraduate level are patently robbing literature of much of its emotional and imaginative excitement.

An exemplary exercise in this kind of critical overkill is illustrated by Terence Hawke's analysis of the following W. C. Williams' poem.

This is Just to Say

I have eaten
the plums
that were in
the icebox

and which
you were probably
saving
for breakfast.

Forgive me
they were delicious
so sweet
and so cold.

> In William Carlos Williams' poem . . . the imposition of a new and disturbing status on what would otherwise remain a banal domestic piece of writing is brought about by the visual iconic message which says "this passage of writing constitutes a poem": that is, "these words have a significance beyond their overt meaning". Meanwhile, the symbolic signs emitted lack any of the indications of "poemness" that our culture leads us to look for and expect. By these means, the poem is able to make us think about what those expectations really are and whether or not we really endorse them. It even makes us think about the nature of the social conventions which invest "poems" with "significance", but deny it to other forms of utterance. In this using iconic means to subvert our expectations (the poem) proves fundamentally disturbing.[3]

H. Hardner sees many of these 'isms' as rather frivolous and irrelevant to the development of real dialogue with literature. The problem as she sees it arises from the fact that publication is generally more valued than teaching in universities, "which has made what one can do to, or make of, literature more important than disseminating the understanding and enjoyment a great work of literature can give".[4]

There seems to be therefore a serious malaise present in the teaching of literature at all levels of education. The malaise essentially arises from what I loosely call hermeneutical stances to literature which deny or fail to recognise the true ontology of a literary artefact. Many teachers are quite unaware of the most desirable approach to literature so since it must be taught, it is taught from a frame of reference which distorts literature completely. Certain assumptions are made about literature which effectively obstruct any real encounter between student and literary experience. Roland Barthes has remarked "Literature is what gets taught": what gets taught in many of our schools is not literature.

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The negative stances which plague the teaching of literature result from a nexus of historical and contemporary forces. This issue is far too complex for full consideration here so just three main sources of detrimental influence will be highlighted.

Western culture inherited from the Greeks the concept of art as "mimesis", i.e. art as an imitation of life. This notion fostered the stance that all art could be divided into "form" and "content". The content was what really mattered; what the play was "about", what "message" it carried, was much more significant than the words used to present the subject. The "form" was of secondary importance, it was more ornamental than necessary; in fact the language of art tended to be seen as a distraction from the real issue of "content". As Susan Sontag remarked content was seen as essential and form merely an accessory.[5]

Today this obsession with "content" manifests itself most obviously in the hermeneutical stances of the Marxists and the Freudians. These approaches to literature reduce Hamlet to an elaborate statement of an Oedipus complex and force Hard Times and Silas Marner into the mould of significant historical assertions of the struggle of the proletariat in the revolutionary dialectic.

Such approaches attempt to make literature amenable: they wrap it in a known framework of reference and thus divert and blunt the questions the work might be insistently asking. As Sontag states,

> Real art has the capacity to make us nervous. By reducing the work of art to its content and then interpreting that one tames the work of art. Interpretation makes art manageable, comfortable.

And she concludes with the indictment "the idea of content is today mainly a hindrance, a nuisance, a subtle or not so subtle philistinism".[7]

All this appears to be very distant from the problems of presenting literature in education, but of course it is central to the issue. "Content" has been the call of the "Sirens" to the curriculum-makers even up to the present day. So it is seen as good educational practice in the literary area to make literature relevant: if the child comes from a deprived background then give him a book about a similar situation and then literature becomes a form of bibliotherapy, an instrument for sociological and psychological reintegration and so justifies itself. The quality of the book is apparently of little concern once its content is appropriate; other issues do not arise.

In a curious manner this attitude has reinstated in a different guise the morally-improving tales beloved of the eighteenth and nineteenth centuries. The children's author, Gilian Avery, tells that as a young girl she was given such books to read; books which warned about the insidious dangers of circus life and theatrical careers. Yet her memory of these books was not the neatly packaged moral message but their success in making the forbidden life styles so teasingly attractive. The effect of literary experience (even of the most banal kind) cannot be predicted so absolutely as those concerned with "content" seem to believe.

A further extreme of this emphasis on "content" in literature was/is the practice of paraphrase. This activity, usually initiated with the suggestion, "Put in your own words Lear's speech to the storm on the heath", eliminated ultimately the need for the literary experience at all since you had it all in your own words anyway: another manifestation of the widespread "read the notes and forget the text" syndrome.

These approaches are all totally inadequate because they ignore the sensuous and imaginative dimensions of a literary work; they overleap this and fall into academic abstractions, moral lessons and minimal summaries. As Sontag comments,

> Our task is not to find the maximum amount of content in a work of art, much less to squeeze more content out of the work than is already there. Our task is to cut back content so that we can see the thing at all . . .
>
> What is more important now is to recover our senses. We must learn to see more, to hear more, to feel more. 8

The contemporary popular attitude to language militates against developing such an approach to literature. We are all victims of a culture in which words as sensuous, imaginative, mythical, historical entities, words as Joyce said with their "silent power", are little respected. Language in the modern world is primarily seen as a mode of conveying information or as a mode of manipulation. The media with their continuous disgorgement of news and information cultivate an addiction to many matters of fleeting importance. Facts, news, every hour, on the hour, dominate many people's consciousness. As Walter Benjamin suggests, "Information establishes its hegemony by its claim to prompt verifiability".[9]

Such a strident cultural context conditions us all into certain stances of reading and listening, so that now it could be said that there is an efferent emphasis in our reading and listening. Efferent reading occurs when, as Louise Rosenblatt says, "the reader's attention is focused primarily on what will remain as a residue after the reading".[10]

In this reading we are predominantly concerned with quickly gathering information, e.g. in reading the instructions on a required medicine we are not particularly concerned with the consonantal music or suggestiveness of the word "analgesic". There is an increasing literalness about our attitude to language which when applied to the reading of literature is disastrous.

Whereas the language of literature also has an information content, it is primarily being used as an artistic medium and must be approached as such. Therefore to read literature properly we need to approach it aesthetically, conscious of the richness of words, word-patterns and of our own responses to what we are reading. Rosenblatt defines aesthetic reading as reading "in which the reader's attention is centred directly on what he is living through during his relationship with the particular text".[11] The act of reading literature means an involvement with language which is of a totally different order to our usual relationship with language.

Banjamin makes the point that the art of story-telling is dying out because it borrows from the marvellous and the magical, it demands an act of faith in the listener[12] - a willing and prolonged suspension of disbelief. But for anything to be acceptable today it has to be aggressively sensational or immediately plausible. But literature of any quality cannot operate within such limited and superficial parameters, it does not expend itself in instantly accessible information, it has to percolate through the sensibility of the reader before any experience can be encountered.

To read literature as it should be read we need time; time to delight in words for their own sake and so develop a relationship with the dynamic form of the literary creation.

In the educational context the development of aesthetic reading stances has been inhibited by the implicit objective of training critics of literature rather than in directing attention to training readers of literature. This useful distinction between "critic" and "reader" has been made by George Steiner.[13] While he admits it is difficult to actually separate the two activities it is possible to see they have a different emphasis and orientation. The "critic's" perspective is pointedly intentional, its main aim being to produce intermediate texts between the person and the literary creation. This stance produces the myriad of academic essays which students produce in school and college whose educational value is gravely suspect. The actual effect of the critical emphasis is to distance the literature from the person in a manner which tends to inhibit more spontaneous responses.

Thus it distorts the aesthetic response because as Gadamer stresses "In the aesthetic sphere, the experience of being seized by the object precedes the critical exercise of judgement".[14] I wonder how many students regularly experience in our educational system the experience of being "seized" by a poem or play.

The orientation must be changed towards developing "readers" of literature, readers who will immerse themselves in the text repeatedly and remain open to the rich dialogue it will initiate with their imagination. In this stance there is no distancing involved and little overt intentionalism; the "reader" reads not to search but to discover, not to impose but to embrace, not to shape but to be shaped.

If we are to teach literature with any kind of real and lasting success then it is essential to develop a kind of teaching which takes cognisance of the issues raised here. In short we need an aesthetic approach to literature. But many people are uneasy with the word aesthetic, it tends to conjure up images of delicate strategems, "artyness" and ephemeral unteachable objectives. Instead therefore the desired approach is most aptly designated as an erotics of literature.

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An erotics of literature in the classroom is characterised by four attributes.

(a) It gives complete recognition to the mode of existence of a work of literature as a sensuous, symbolic verbal form.

(b) It stresses the need for the teacher and pupil to cultivate a "reading" relationship with the literary work. Such a relationship will develop only if a continual process of recreative inter-play between person and text is permitted.

(c) The "inter-play" must involve a large degree of receptivity in the person: without an open-ness to the text there is the all too present pit-fall of hermeneutical impositions, and therefore denial of the full experience.

(d) The result of this inter-play should find expression in a mode of performance or commentary which attempts to safeguard the aesthetic quality of the encounter and yet enriches it by relating it to personal perspectives.

But can such a romantic ideal of literary education ever be achieved in the hurly-burly of actual classroom work? I believe it is frequently possible to achieve such objectives in the primary school and the early years of secondary school. Under the present examination regime the late secondary school years are a particular problem; even in that context, nevertheless, the committed teacher can make room for "erotics" in modes of presentation and commentary.

The following are some practical guidelines towards the development of an erotics of literature in the classroom.

(a) The first necessity is to choose literature for one's pupils which invites them into its world by its quality of narrative, atmosphere or language. Literature courses should include therefore a much greater range of children's literature. There are many authors of real quality who speak directly to the interior world of the child or adolescent with an intensity and sincerity which is inescapable. This does not imply that the literary works must always be overtly serious; humour, it seems to me, is one of the most desirable (and at present, absent) qualities in literary experiences in school. Authors such as Philippa Pearce, Penelope Lively, Joan Aiken, Ivan Southall and William Mayne have much to offer at primary and secondary school.

The critical rule for choosing literature for teaching (as for personal reading) has been given by Roland Barthes.[15] One must ask oneself the question: Does this text desire me or does it prattle at me? Much of the literature given to pupils prattles at them. Desire invigorates Eros always, so on that obvious principle let the text desire the child and let the child desire the text; from that mutuality of feeling will grow the encounter of creative interplay which is literary education.

(b) The teacher in his presentation of literature must be an impassioned performer. He must develop the skill of reading aloud with conviction and total imaginative belief of the text. Thus he can create for his pupils a model or image of a relationship with a text which they may desire to emulate. Barthes has commented that the most erotic part of a garment is where it gapes,[16] where the imagination is teased, tempted, invited and inhibited by the possibilities of encounter. The teacher in his performance can make the textual garment gape in a variety of ways, e.g. by the rhythm and tone of a poem, or by the ambiguity of relationships and the possibilities of narrative and character in a novel or play.

Here are two poems which have been used at secondary school level to cultivate rich imaginative interplay in a classroom.

Disillusionment at Ten o'Clock

The houses are haunted
By white night-gowns
None are green,
Or purple with green rings,
Or green with yellow rings,
Or yellow with blue rings.
None of them are strange,
With socks of lace
And beaded ceintures,
People are not going
To dream of baboons and periwinkles.
Only, here and there, an old sailor,
Drunk and asleep in his boots,
Catches tigers
In red weather.

Wallace Stevens.

The Times are Tidy

Unlucky the hero born
In this province of the stuck record
Where the most watchful cooks go jobless
And the mayor's rotisserie turns
Round of its own accord.

There's no career in the venture
Of riding against the lizard,
Himself withered these latter-days
To leaf-size from lack of action:
History's beaten the hazard.

The last crone got burnt up
More than eight decades back
With the love-hot herb, the talking cat,
But the children are better for it,
The cow milk's cream an inch thick.

Sylvia Plath.

Note how at such lines, "People are not going/to dream of baboons and periwinkles" or "In this province of the stuck record", the "textual garment" gapes and the imagination is invited and tempted to inter-play.

(c) It is the next step in the process which is the most difficult one. How can our pupils become directly involved in the act of reading literature? Quite simply they must be invited into active oral performance - only then will the literary text come fully alive for them. They should be encouraged to read the text to one another or in groups and from these readings a range of questions will inevitably arise to which the teacher can encourage speculative and imaginative responses in written or oral form. Thus the play of significance, of personal interplay with the text will be created. Later the pupils should be encouraged to read their personal performance of the text aloud or record it on tape for playing to the rest of the class. This activity will hopefully lead to the ultimate objective of an erotics of literature - the memorisation of some of the text, thus taking personal and intimate possession of its world.

The act of memorisation has long lost credibility in our culture. In the context of school, encouraging memorisation is greeted with howls of disapproval from the progressives. No doubt much of this hostility to memorising is based on some excruciating experiences of school. We all have known the stomach-sinking feeling at the end of English when it was announced "Learn off the first ten lines of Lear's storm speech tonight": and the morrow brought the boredom of inchoate, semi-accurate recitals by most of the class. No such precedence is being advocated here; memorisation is an ideal to be encouraged in a specific context not a repeated irksome injunction to be imposed.

In attempting to create an erotics of literature then the act of being possessed by a text and reciprocally possessing the text is a most desirable end. The act of memorisation removes the text from the position of being "out there" to being "in here". Since our aim is to develop readers of literature then as Steiner says "the reader must strive for fusion with the text via internalization . . . the reader in senses and spirit as it were crowds up against the actual surface of the text".[17] Thus is achieved a uniquely personalised relationship between person and text; a relationship through which the space and consttucts of an interiority are permanently modified. It is in this manner that literature achieves its profoundly moral purpose.

Finally the act of memorisation besides allowing one to return repeatedly for contemplation of the text "learnt by heart" also achieves the purpose of relating one to "a collective, cultural agency, it preserves a communion of shared echo, of participating reflex".[18] Thus we can come in touch with traditions of words and symbols which have deep psychic roots and perhaps become aware of the mythic dimensions of words and so alleviate the rampant literalism of our time. In my own experience I have invariably found that the natural beauty of our household's Christmas hyacinths is enriched because I remember T. S. Eliot's opening lines of The Song for Simon. "Lord, the Roman hyacinths are blooming in bowls!" There is so much historical experience and human continuity brought alive by that one line that I cherish now the moments spent memorising that poem.

The main objective of this paper was to remind English teachers of the unique role their subject has in education and to urge them to be confident in their advocacy of an aesthetic approach to literature. Otherwise there is an increasing danger that English teachers will find themselves reduced to the role of a "service position" for other subjects; in other words teaching language and communication studies and using literature as material for this function. To capitulate to such a pragmatic role would be the ultimate triumph of philistinism in English teaching.

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THE CONTEXT OF CREATIVE WRITING

Séamus O hÉilí

According to the Bullock Report (1975) the term 'creative writing' is a term of recent origin.[1] It was in the area of the visual arts that "teachers first discovered that children could express their individual response to experience without first acquiring techniques by deliberate practice."[2] The discovery of spontaneity in the visual arts encouraged experimentation in other artistic areas of the curriculum, e.g., personal writing. Attempts were made to startle children into "spontaneous utterance".[3] This was done by focussing the child's attention on a display or other stimulus to which the pupil would then be asked to "respond in whatever way moved him".[4]

Startling pupils into spontaneous utterance was quite popular in the 1960s and early 1970s. In 1964, Albert Rowe and Peter Emmens published a series of textbooks, titled English through Experience, which incorporated the new emphasis on spontaneity. Each lesson of these books was based on a theme and was introduced by "enriching sense-experiences", which sought to stimulate the pupil's imagination and set him writing freely in a personal way.[5]

The first lesson in the Rowe and Emmens series gives us an excellent example of the startle-approach to stimulating the imagination. The teacher is asked to burn three or four sheets of coloured paper in a lid or biscuit tin. The students are asked to make notes of any words they think of, or any sight, memory or imaginative leap that occurs to them. They are warned not to describe what they see. Instead they are to write personally and freely about whatever impression entered their minds on the sight of the burning paper.[6]

This approach to creative writing filtered into the study and work of many teachers during the 1960s and 1970s. Many of us who were in the colleges of education at the time will recall the "Creative Writing" lesson during teaching practice. Each of us would arrive at our school laden with unusual poems, objects or charts. A discussion was held and the children were told to write their impressions of what they had seen or heard. The results of the lesson were fairly predictable - two or three fine responses, read out by the student-teacher, followed by a batch of scripts consigned to the dustbin.

Such unimpressive results naturally led to criticism. John Dixon in Growth through English (1967), argued that the private written work of the child takes its meaning from "what has gone on before ... writing assignments without a background of discussion and shared experience are unlikely to elicit much response from many children and young people."[7] An article in the Times Educational Supplement in 1979 criticised the use of a single or startling stimulus for developing creative expression because a high standard of response is expected from the pupils with the minimum of input from the teacher. An instance is quoted where a lesson was introduced by a single reading of the poem "Timothy Winters"; followed by a few perfunctory questions on the poem; then the inspiring instruction - "Write me a poem about a deprived child."[8] The point of this illustration is that the quality of the pupil's response is directly related to the quality of the teacher's input.

The use of a single stimulus inhibits quality in a pupil's work because it does not ensure that the child's response is the best he is capable of. It tends to encourage the view that spontaneity is the end of creative expression rather than the beginning. A child's writing must develop and development cannot take place if spontaneity becomes sacrosanct. All writers view spontaneity as the first step in the creative process. The subsequent developmental steps are contemplation, writing, revision and correction. The Bullock Report argues that "whenever spontaneity is exclusively valued" the latter kind of development is inhibited.[9]

The inadequate teacher input in the mechanistic structure of the single stimulus method contrasts with John Dixon's views on teacher involvement in setting up a background of discussion and shared experience. This view was reiterated in the Bullock Report which favoured a contextual approach to creative writing. They viewed a context in terms of a corporate enterprise in which the individual interests and experiences of the children were "cumulatively shared with the teacher and the rest of the group."[10]

It is left to the teacher to define the nature of the corporate enterprise to be tackled. My own proposal would be to return to the thematic structure of Rowe and Emmens in the 1960s. A creative theme provides an ideal corporate enterprise in the classroom from which imaginative and personal writing can flow. Creative themes such as: Friendship, Darkness, Ghosts, Night, Fairs, Carnivals and Obsessions - evoke a personal response in us conjured up from a myriad associations. Creative themes deal with the world of inner experience, feeling, imagination and fantasy. Down through the ages writers, artists and musicians have responded to them so they are therefore a proven means of engaging us in a personal response. Imaginative writing in the classroom helps

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children put a shape on that response in the same way that a writer, artist or musician would.

These themes have many other advantages. Lynskey has argued that they provide both teacher and child with a framework. Children vitally need a structure to produce worthwhile work because "they cannot create in a vacuum nor in a field so wide as to confuse the issue and blur the edges."[11] A theme also gives the child a natural learning context out of which language will flow. The current interest in the communicative approach to second language learning is a recognition of this fact in that language is learned in response to a situation that calls for it. The third major advantage of the thematic structure is that it encourages a high level of involvement on the part of the child. Dixon has argued that it is the child's "involvement in the experience that will draw them into writing."[12]

The first question that arises in the organisation of a thematic approach to creative writing is - What is to be the content of the theme? The simple answer is imaginative works of literature, art or music. Literature would be particularly important because it acts as a model of expression. All serious writers claim or have claimed that their writing in their early years has been influenced by some predecessor. Yeats, for example, was influenced by the Victorian poet, William Morris, and according to Yeats's critic Richard Ellman, profited 'from Morris's example'[13] Emily Bronte's Wuthering Heights could not have been written had she not imbibed the language and imagery of Mrs. Ann Radcliff's terror novels and Shakespeare's King Lear.[14] If children are to produce worthwhile written work then they, too, must be given a chance to learn from other writers.

The second function of literature in this area is that it can act as a source of inspiration for one's ideas. James Reeves, the poet, stated in Teaching Poetry that: "Most immature poetry is written in imitation of some poem which has appealed to the writer."[15] The truth of Reeves's assertion can be judged by the variations young children can make on nursery rhymes and poems and call them their own. Some time ago my four year old daughter went through a phase of 'making up' new poems. These new poems were simple variations on nursery rhymes she had previously learned. An older child can, by relating to an idea, attitude or event in a story or poem, accept, reject or change it, and so make something of it his own. The discussion of ideas, attitudes or events in a story can lead to the shared experience which is the prerequisite of creative writing. Literature enlarges a child's experience so that he can re-create from it. For example, by seeing the way writers express their fear of darkness, children can be encouraged to write about their own fears about night and darkness.

Having decided upon the content of the theme, the next step is the organisation of an approach to the material. An example would best illustrate this. The funfair has had a special enchantment for children down through the centuries. It makes an ideal starting point for getting children involved in sharing experiences of fairs, carnivals, or merry-go-rounds.

Such an enterprise should begin with discussion that would elicit the children's factual knowledge and experience of the theme. A brief outline of the origin of fairs could be given by the teacher. Questions could be asked of the pupils that would draw out their knowledge of famous Irish fairs, Irish fairground families and local fairs.

The next phase of the enterprise should involve literary, artistic and musical interpretations of other

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people's experiences of the theme. Much of this work should be done for the sheer enjoyment of it. The class must not be compelled into analysing every poem, story, picture or piece of music that is presented to them. The basis for pupil activity at this stage should be centred on the imaginative response rather than the critical response; the recitation of a poem; the artistic interpretation of a piece of music; listening to a story on a tape. Pam Ayre's poem "Madbrains Watkins" about the owner of a travelling fair is an ideal example of a poem intended for recitation.

It is only when the first two introductory stages have been completed that the teacher should engage the children in critical exercises. For young children this work should be limited to comprehension and language study. The comprehension work need not always be confined to question and answer sessions. In a study of an article on the history of a local fair, for example, pupils could be asked to list the events which the author saw at carnivals down through the years. By thinking ahead, the teacher could use such a list as the basis of the creative writing session.

Children learn best from a writer's language by means of a look-practice approach. Pupils could, for example, look at a word like "slimy" as found in a poem or story. Its meaning in the context of the story or poem could be discussed and then the pupils could devise new contexts for the use of the word. Similarly the comic effect of a sentence could be examined or even a descriptive extract such as the following Dylan Thomas piece:

All the fun of the fair

> All the fun of the fair in the hot, bubbling night. The Man in the sand-yellow moon over the hurdy of gurdies. The swing boats swimming to and fro like slices of the moon. Dragon and hippogriffs at the prows of the gondolas breathing fire and Sousa. Midnight roundabout riders tantivying under the fairy lights, huntsmen on billygoats and zebras hallooing under a circle of glow-worms.
>
> And as we climbed home up the gaslit hill, to the still homes over the mumbling bay, we heard the music die and the voices drift like sand. And we saw the lights of the fair fade. And, at the far end of the seaside field, they lit their lamps, one by one, in the caravans. 16

This Dylan Thomas piece would be very appropriate as a model for a creative writing session. Pupils would first of all have to get the feel and rhythm of the piece by both memorisation and recitation. They could then be given an additional vocabulary that would enable them to create sentences of their own modelled on the feel and rhythm of the extract. This vocabulary could be broken up under headings such as: The Atmosphere of the Fair, Fairground Sights, Fairground Sounds and People at the Fair. A thesaurus is invaluable with such work.

Once all these stages of preparatory work have been completed the pupils should be ready to write. Most children will shape their writing in story form. Robert Leeson, the children's author, holds that in teaching children to write creatively we should always start from the story and encourage them to write from "this secure base".[17] It is secure because from the time they first listen to their mother they are surrounded by stories. This is so because as T. Mullins has said: "Story-making seems to be an indigenous activity of the human person, as reflexive and essential an activity as breathing."[18]

It has also been argued that the narrative story seems to be the most fundamental way in which the human consciousness responds to experience.[19]

When the children are writing it must be stressed to them that what they are setting down on paper is a first draft. In a recent article in the Times Educational Supplement, John Noble, a journalist argued for a realistic attitude to correction on the part of teachers. He suggests that teachers should adopt the role of editors in the classroom and urge the pupils to look upon themselves as authors who make drafts. These drafts are then submitted to the editor and revised on his advice. The final version should then be written out with a use in mind. This use could consist of any one of the following: publication in a class anthology, publication in a children's page of a magazine, reading out loud to the class or other classes or posting to a pen-friend.[20] The Bullock Report concurs with these sentiments when it is argued that a child's experience of writing should not be one that leads him to look upon every writing assignment as a minor test, the almost certain outcome of which will be a list of spellings to be written three times.[21] Aspects such as style, choice of word or image and character consistency should have an equal footing with spellings.

The fundamental implication of this thinking for teachers is that the dreaded activity of correcting has to be undertaken within a framework hitherto not practised. Teachers should set out their own priorities in terms of expectations before the pupils commence writing. Pupils should be told that very few authors can get a whole story right first time - mood, style, narrative, characterisation, handwriting, spelling, sequencing and punctuation. Therefore total perfection is not expected in a first draft. It may be argued that such an attitude by the teacher would be conducive to careless attitudes developing among the pupils. This need not be the case if the pupils are asked to correct their own first draft or if pupils in a cooperative spirit are asked to correct each other's first drafts. The teacher then need not come into the process until the second draft stage.

What makes all this work worthwhile is the eventual outcome. If the creativity in the pupils' writing springs from commitment and involvement in the theme then the teacher can feel that success has been achieved. If the models provided by the teacher have been internalised by the pupils, then jubilation is called for. I received the following final paragraph in a story, modelled on Dylan Thomas's description of a fair, from an eleven year old:

> I turned my back and walked silently away, thinking about all I had seen. I heard the music of the fair get farther and farther away. I looked back and saw only the lights and heard only the whoops and shouts of people which now sounded very faint in the still of where I was standing. I looked over the calm sea and thought of the man and monkey in the sea-blue suit, the music of the roundabout and the hurdy-gurdy which now seemed a fragment of my imagination. A little breeze rustled the leaves of the few trees around and blew through my hair and was gone, gone like the fair. I walked home, never to return to that exact same fair as I saw it tonight.

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FOUNDATIONS AND PRACTICE OF THE NEW CURRICULUM

Hugh Gash

Introduction

In the context of the activities of the Curriculum and Examinations Board (CEB) it is appropriate to examine the foundations and practice of the New Curriculum (1971) which is in use in our National Schools. It would not be unreasonable to identify Piaget's theory in the thinking of those who drew up the New Curriculum and this is explicit in the mathematics section of the Curriculum Handbooks (1971, p. 125 ff). Piaget in turn has made clear his intellectual debt to the epistemology of the American philosopher John Dewey (Piaget 1935/1970). In this paper I shall look to writings from Piaget and Dewey in my examination of foundations. It is my contention that some critics of the Irish New Curriculum and more internationally the critics of "progressive education" have tended to be less than fair to the idea of Piaget and Dewey in their criticism.

There are people who deplore the "falling standards" in school and who blame the New Curriculum for these falling standards. This tendency has a history and one example I will refer to was published in England in 1968 edited by Cox and Dyson. I have found it difficult to locate more than impressionistic evidence of these falling standards. One reason for this is that the safest way to substantiate such a claim would be by reference to objective tests. These tests have not been in use for very long in Ireland - at least not on the scale which would be needed to make strong claims about falling standards in schools. Yet to blame the New Curriculum for such a fall in standards - if it could be shown - would require that the New Curriculum be implemented in classrooms because it may be that the alleged fall in standards is not due to the New Curriculum but to other factors.

It is the view of this writer that there are a number of critics of the New Curriculum in Ireland, who have glossed over key aspects of the thinking behind the New Curriculum - key aspects which ought to be kept in mind when getting to grips with the problems in current educational practice. It is as though there have been some traditional critics of progressive education who have been so convinced that the new methods were fundamentally wrong that they have ignored or distorted the facts in their zeal to persuade others that they hold the truth. For these critics it is fashionable to criticise Piaget and Dewey and the New Curriculum. I think that there is a genuine danger of returning to more traditional forms of education because the thinking behind the New Curriculum has not been generally understood by vocal and effective critics of practice or perhaps more correctly of perceived practice. In other words social changes are being attributed to perceived modern educational practices which are being attacked independently of a careful examination of either current practice or the theory on which this practice is supposed to be based. In a recent article Murphy (1984) has summarised conveniently many traditional arguments against the foundations of the 1971 Curriculum Handbook and further suggested that certain problems in Irish primary teaching may be due to this curriculum.

I will argue that there are certain critics of progressive educational theory who interpret this theory inadequately. Further I wish to examine the extent to which the New Curriculum can be shown to be implemented in Irish schools because its effectiveness can only be judged if it is in fact implemented.

THEORETICAL ISSUES

Theory.

In both Dewey and Piaget the basis for movement away from the traditional methods of teaching was the realisation that the traditional epistemological model was wrong. Dewey deals with this in his The Quest for Certainty; Piaget in his Science of Education and the Psychology of the Child. They were both concerned with the role of the individual in the act of knowing, a role forced on the attention of epistemologists of that time by developments which had occurred in their contemporary physics.

There are good arguments against the traditional idea that knowledge is something which can be given by a teacher and taken in passively by the learner. This can be demonstrated in a lighthearted but profound way by telling a joke. Understanding a joke is an active process in which the interpreter matches the meanings of the words in the joke with the meanings he/she already possesses for the given words. So for example, the punch line which goes "the furry with the syringe on top" requires the interpreter to possess the phrase "surrey with the fringe on top" in order to understand the joke. As I get older the numbers of students who do not possess the relevant information about Rodgers and Hammerstein's song has increased, and increasing numbers of students cannot see this joke. Some constraints which limit

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communication can be illustrated with reference to this example. Communication and understanding require that meanings be matched to the interpreter. It is not sufficient that the message be given - if one is concerned about the listener's processing of the information. It is necessary to be concerned about this process if one is interested in teaching and so changing the learner's understanding. Communication is limited by the cognitive items which the listener possesses and also by the ability of the listener to make the appropriate match between what is heard and these previously acquired items. Further even where a learner possesses the cognitive items to understand something he/she must be able to assemble these items in the correct way to make the meaning the teacher intended to transmit.

This type of argument poses a major difficulty for traditional approaches to education. What it implies is that for experience to be genuinely educational the pupil/learner must be actively involved with material which is at an appropriate level for him/her.

EFFICIENT LEARNING

Progressive methods often are criticised because they are not efficient.

There have been numerous criticisms of the idea that children learn best from self-initiated inquiry. Perhaps the problem is that the word best calls up different meanings in different people. There is a sense in which discovery methods are inefficient (.e.g. Brainerd, 1978). Further they may lead to an undermining of the teacher's authority which traditionally rested on the system of known and inherited truths

(Murphy 1984). Again discovery methods are difficult to put into practice in classrooms, difficult but certainly not impossible. They require organisation on the part of the teacher, especially when there are big numbers of children in the classroom and when the children are not used to the type of discipline needed for these methods to work. Further when the other teachers in a school do not use discovery methods it is doubly difficult for any teacher to use them. If a teacher is concerned to teach specific content then there is much evidence that very direct methods will achieve this result (e.g. Good & Brophy, 1984). However, I believe that there is an important qualification to this because I am not convinced that this is the case if the material to be learned contains a new concept. In this case then I think that direct teaching will not achieve the understanding necessary to allow the child to generalise. As evidence for this I could refer to programmes to try to teach young children aged five how to do certain Piagetian problems such as class inclusion. With many of these children it was quite impossible to get them to understand what is involved (see Gash, 1980).

Further I think that it can be shown that there are features of progressive methods which may be less efficient yet which retain certain advantages which will be lost if their inefficiency is allowed to banish their use entirely. I will deal with these advantages in a later section.

The role of action in learning.

Is action on the child's part necessary to learn concepts? Piaget insisted that children be active but research (e.g. Anthony, 1977) has shown that physical action is not necessary. The crucial issue here is that the child must be cognitively active and children can be cognitively active without being physically active.

The insistence on action in progressive classrooms stems from its fundamental role in Dewey's epistemology. For Dewey concepts were coded results of the consequences of actions or operations (Dewey, 1929), and there is not enough time here to go into this in detail. However, the central idea is that it is only ideas which inform action and only the consequences of such directed action which in turn modify ideas. A simple illustration of this idea can be made with reference to computer use where it is the ideas we have which tell us what to do with the keys, and the consequences of these actions tell us precisely how good or bad the ideas were. We do not know until we have acted and the consequences may be that the paper we've spent hours typing is erased rather than "saved".

How naive was Dewey about curiosity? Is it naive to value children's curiosity in teaching?

Dewey argued that the child's curiosity ought to be engaged in order to ensure that the child was interested in the class proceedings. However, he was careful to distinguish between exciting a child's curiosity which was actually the second stage in the process and moving on so that the child was able to learn how to focus this curiosity intellectually on the subject matter. So Dewey clearly warned that it was not enough to stimulate a child with something interesting for this child to learn, and reasoned that it was necessary to give the child's interest or curiosity an intellectual focus (Dewey, 1933/1971, p. 37). This seems to me to be a far cry from the naive notion of interest-stimulated inquiry criticised by some traditionalists (see Murphy, 1984).

Certainly Dewey can not be accused of being naive about this and so this criticism is grounded in a misconception. There may be educational practitioners who have interpreted Dewey in the way traditionalists criticise. However, to attribute such a view to Dewey is to admit to being unaware of what Dewey said.

Must development be spontaneous?

Some traditionalists (see Murphy, 1984) have interpreted Piagetian theory so that it is held to insist that children should progress informally and spontaneously through the various stages of intellectual development, unhindered and unrestricted by traditional techniques of instruction. The bases of this assertion are references to the Plowden Report and the Teacher's Handbook of the Irish Primary Curriculum (Murphy, 1984). While this interpretation is understandable it is not one accepted by psychologists familiar with Piaget's writings. It is a view which has been humorously referred to as the rosebud theory of education "just feed and water children and watch them grow"! One compensatory education programme which I have been associated with - the Mathemagenic Activities Programme (MAP) - was explicitly based on Piaget's constructivist epistemology (see Gash & Smock, 1975). The major stimulus to cognitive growth which MAP emphasised was conflict in a child's mind. Conflict is experienced by the child in response to a discrepancy between what the child experienced and expected to experience. In jokes this conflict is often between a commonly met meaning and a novel one, or it is in finding associations we hadn't expected, or it is in discovering that there is something the same when four ants are compared with four elephants - in spite of all the differences. This emphasis on conflict as a crucial motivator was not peculiar to MAP but is stressed by other cognitive developmental psychologists when they deal with the influence of the social environment on children's development (e.g. Sigel & Cocking, 1977), and indeed is mentioned implicitly in this context by Piaget (e.g. in Piaget & Inhelder, 1966, p. 156).

When conflict is understood as a fundamental motivator then the teacher has a much more important role than in the traditionalist description of the Piagetian classroom. Now the teacher must arrange the child's learning environment and provide appropriate choices and do all that is necessary to ensure that the child is productively occupied while in class.

PRACTICAL CONSIDERATIONS

In this section I intend to look at some of the research which points to the advantages inherent in the discovery approach and possible drawbacks to the traditional approach. I want also to examine the extent to which the New Curriculum can be said to be implemented in Irish classrooms because Murphy (1984) suggested that there is a decline in Irish culture and that this may be due to the New Curriculum. This seems far fetched though a consideration of the evidence on whether the New Curriculum is being well implemented in Irish classrooms will offer some idea on whether this possibility has merit.

It may be more efficient in teaching a class a small set of facts to be very direct and drill them. Evidence summarised in recent articles testifies to the benefits of being very well organised and direct in one's teaching (e.g. Brophy and Good, 1984). As Rutter (1983) puts it

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"some of the features associated with school effectiveness include a high proportion of lesson time spent on the subject matter of the lesson; a high proportion of teacher time interacting with the class as a whole, rather than with individuals; minimum disciplinary interventions ... clear and unambiguous feedback to pupils on both their performance and what was expected of them and ample use of praise for good performance". I have already referred to the difficulties this poses when children do not actually possess the cognitive items needed to learn what is being taught. However, one could teach the children directly and one could take care that the level at which one was pitching the information was correct.

Recently Neville Bennett said that there was no evidence on the effects of open classrooms when he was interviewed about his book Teacher Styles and Pupil Progress. At that time there was evidence on the effects of a number of the American Follow Through Programmes which followed on from the more well known Head Start Programmes. That evidence was not all bad for either the more progressive child centered programmes nor for the very direct behavior modification programmes. However, the evidence was often buried in unpublished reports undertaken by the sponsors of these programmes in order to justify their efforts to the programme funding agencies.

The effects of the different programmes to which I refer were that specific content could be well taught by direct methods which sometimes relied on reinforcement. However, there was a suggestion that methods which were very teacher directed taught the children to attribute success to good teachers and there may have been a corresponding lack of confidence in this attitude. More recent studies which are easier to find bear this out.

A number of studies by Wang show how pupil involvement in deciding how to organise their work has beneficial effects (Wang, 1982, Wang & Stiles, 1982). Further Rohrkemper showed that pupils in "inductive" classrooms were more likely to attend to intentional aspects of peer behavior than comparison pupils in behavior modification classrooms; and the younger students in the behavior modification classrooms were the least insightful in their interpretations of peer behavior, least involved affectively and behaviorally in their peers' behavior and most global in their understanding of teacher goals (reported in Weinstein (1983)). So the effects of socialisation appeared strongest in the younger children.

The type of attitudinal benefit to progressive education which seems highly desirable is one which was referred to by Sylva, Bruner, and Genova (1976) who showed in an experimental study how children who were given the opportunity to play with materials were superior to children who were taught by observation how to solve puzzles. The children who played were superior in terms of the different types of solution they achieved and also in terms of the way they were not put off by initial failure but they were more persistent seemingly because they had learned a playful experimental attitude towards the materials.

This type of attitudinal effect can be seen also in a number of studies of programmes in the United States. It deserves to be made more public because there is a tendency to see the traditional progressive debate in black and white terms and it is far more complex than that. In fact in the process of coming to the end of this paper I find that there are so many shades of meanings to the terms progressive and traditional that

I am coming to the view that they are no longer adequate - my question is changing. The question is becoming "what are the consequences of different educational strategies for children?"

The difficulty of doing good research into classroom practice cannot be overemphasised. Bennett (1976) for example classified teachers into formal, informal and mixed in his initial report and reported that there were certain ways in which formal teachers were superior to informal ones. He got much publicity for this in both newspaper and television perhaps because it was what people wanted to hear. Then his data were examined more carefully later and he got far less publicity for showing that the flexible teachers had improved in this new analysis (see Aitken, Bennett, and Hasketh, 1981). The difference between the two sets of conclusions was not subterfuge or dishonesty but stemmed from an improvement in the methods by which the groups of teachers were made. Careful reasoned analysis rather than a rushed condemnation of any poorly defined educational practice would seem to be called for.

Murphy (1984) gives the impression that Irish classrooms are working to the detriment of Irish children and it's the fault of progressive methods. In the Irish context, if one was to question the effects of the New Curriculum on Irish primary education - then it would be possible to examine the extent to which this Curriculum can be said to be well implemented in our Irish schools. To begin, Archer (1984) has noted an inconsistency in the extent to which progressive education is an appropriate label to apply to the recommended practices in the New Curriculum handbook. "The specific aims and activities listed (in the 1971 Curriculum Handbook) include references to aspects of reading, writing, and to a lesser extent, numbers which would seem to require fairly sophisticated levels of the basic skills." So there is an apparent inconsistency here which may translate into inconsistent practice in classrooms in Ireland.

Next there are a number of studies performed at the Educational Research Centre which look at the extent to which the New Curriculum can be said to be implemented. They do not examine actual classroom practice but rather use questionnaires to get at teachers' approaches, attitudes and reported practices. It is helpful to be careful about labelling teaching practices. Egan (1981) distinguished between approach to teaching and teaching technique. An approach he defined in terms of priorities for curriculum content, preferred resources and general strategies of classroom management. Technique referred to the actual procedures used to put an approach into practice. Primary teachers at each grade level were questioned about their approach to teaching. Egan found that they could be best classified as either formal or informal. An informal approach is adopted by about two thirds of the teaching population in the lower grades, and a formal approach by the remaining one third. In the higher grades the reverse held. In addition teachers were questioned about the percentage of time spent teaching the class as a unit and Egan reported that there is a high rate of didactic teaching for both formal and informal teachers. He noted that this was the only data he had on actual teaching technique and that he can report nothing against the data from other studies showing that didactic teaching is still the basic method used by most teachers both here and in Britain.

Another study performed by O'Rourke and Archer (1982) at the Research Centre examined the practices of teachers in the early years in primary schools. In the study of maths there was a distinct tendency to begin with activities which were genuinely oriented towards the development of understanding concepts. However, by the time children had reached first class teachers were much more concerned with the mastery of computational skills. In contrast with this approach to mathematics concepts the approach to language was formal in the bottom three class levels (junior and senior infants, and first class).

In general, teachers of junior classes do use grouping. However, the research by O'Rourke and Archer (1982) showed that while such groups exist, they do so far less than one-third of total class time and further very little class time is devoted to situations where pupils select their own activities.

A final set of data I want to mention was collected by Burke and Fontes (in press). The data were self-reported beliefs and practices of sixth class teachers in Ireland six years after the introduction of the New Curriculum. This showed that teachers would prefer to be able to be more informal and it seemed as though various pressures including parents, teachers of senior classes, and class size prevented more informal practices.

One telling set of figures to emerge from the Burke and Fontes study are the comparisons with Bennet's study on hours per week devoted to academic aesthetic and integrated work (on p. 28). This showed that only one half-hour per week was devoted to integrated classes, whereas nearly 21 hours were academic.

This picture suggests that there is not much which is radically progressive going on in Irish classes. One could cautiously interpret these data to suggest that classrooms provide quite didactic teacher directed learning experiences with little in the way of integrated curricula. Perceived ills in Irish classes cannot be attributed to poor management which is due to the implementation of the New Curriculum.

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THE DESIGN OF IRISH PRIMARY SCHOOL BUILDINGS IN THE ERA OF THE NEW CURRICULUM

John J. Kavanagh

INTRODUCTION

Primary school design is not a topic which has hitherto received particular attention in the field of education in Ireland. Passing reference has occasionally been made to such things as the condition of school buildings and new design features like co-operative teaching in shared areas. The rationale behind the layout of educational space and the various usage patterns which particular design features propagate have, however, been, by and large, forgotten in the face of an urgent need to house a growing school population and against the current background of financial constraint and economic stringency.

Yet, educational criteria do dictate the shape of school buildings and the ways in which they are utilised, and in this regard, the curriculum, always a regulatory force in educational change and development, is an appropriate hour-glass against which to measure movements, trends and issues in school architecture. This paper examines the design and layout of modern Irish primary schools in the context of the current school programme, the new curriculum.

BACKGROUND

Launched in 1971, the new curriculum gave rise to new arrangements and configurations of learning space within the primary school building. These had been presaged, however, in the fresh climate of educational change and development of the 1960s. New concepts of teaching and learning involving group and project work and a greater emphasis on the child, combined with Irish participation at international conferences on educational planning and greater levels of consultation at home between the Office of Public Works and the Department of Education, all conspired to alter the layout of educational space in Irish primary schools.

In a marked departure from the standard plans for school buildings drawn up by the Office of Public Works in the past, the Irish primary school of the late 1960s contained a number of important design developments. Classroom space was increased to about fifteen square feet per pupil - still far short of the twenty square feet and over provided in schools in England, Scotland and Northern Ireland - mainly through a reduction in unproductive non-teaching areas, achieved by incorporating circulation space formerly provided by large corridors into smaller corridors and the rooms themselves, and by removing the large cloakroom blocks of the 1930s and 1950s standard plans and replacing them with smaller lavatory and cloakroom facilities for each room. A lowering of ceiling heights which resulted in savings in building materials and expenses also contributed to an increase in floor space, and the consequent simplification of roof design gave the building a more scaled-down, domestic appearance.

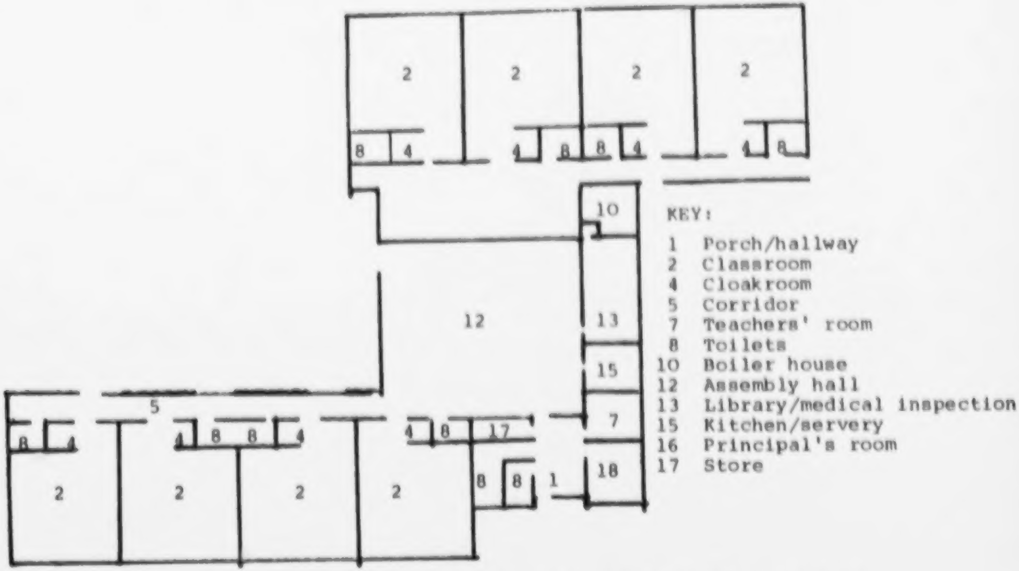
The provision of an assembly hall, later to evolve into the smaller general purposes room, as well as facilitating freer internal circulation of pupils, was intended as an extension of the teaching area, to be used for games, music, drama, dancing and other noisy activities not suitable for the classroom, and also for more formal occasions such as concerts, prize-givings and open days. Library provision, in the form of a separate room in the larger schools, had been preceded in 1963 by the introduction of a school library scheme involving the provision of books by local authority libraries, and marked another step in facilitating architecturally the greater involvement of the child in the primary school programme, while the addition of store-rooms to the plans of the late 1960s recognised the necessity for more equipment to service an active curriculum. It was around this time too that more movable and flexible furniture, notably in the form of pupils' tables and chairs to replace the old dual desks, began to make an appearance in Irish primary schools and played a significant role in stimulating a greater freedom of activity by allowing more scope for group activities and project work.

The advent of a larger, autonomous, self-contained classroom, serviced by ancillary learning spaces in the general purposes room and the library, and containing furniture which allowed variety and flexibility of arrangement, is shown in Plan 1, a 1967 standard plan for an eight-classroom school. By the beginning of the 1970s, then, the architectural response to the rapid germination of a whole new curricular concept which had developed in the previous decade was such that the birth of the new curriculum in 1971 was rendered less painful by the provision of learning spaces which were already designed to accommodate some of that programme's principal emphases.

FEATURES OF SCHOOL DESIGN AND LAYOUT TODAY

More than 500 new primary schools have been built in Ireland since the advent of the new curriculum in 1971 (see Table 1).

PLAN 1 Standard plan of a 1967 eight-classroom Irish national school for up to 320 children.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KEY:

1	Porch/hallway
2	Classroom
4	Cloakroom
5	Corridor
7	Teachers' room
8	Toilets
10	Boiler house
12	Assembly hall
13	Library/medical inspection
15	Kitchen/servery
16	Principal's room
17	Store

SOURCE : Department of Education, Co-operative Teaching in Irish Primary Schools (Booklet of Proceedings of a Seminar held in January 1976), p. 52

TABLE 1

NEW SCHOOL BUILDINGS 1971 - 1981[1]

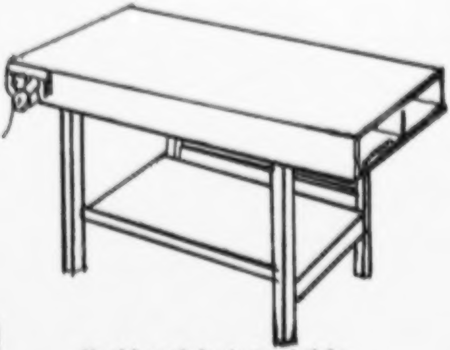
School year	New schools completed
1971-72	59
1972-73	39
1973-74	46
1974-75	49
1975-76	56
1976-77	45
1977-78	41
1978-79	39
1979-80	40
1980-81	43
1981-82	34
Total	491

These schools contain many features which have enhanced the design and layout of today's Irish primary school building.

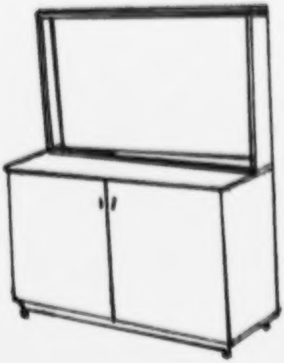
Most notable is a more generous space allocation in the teaching areas of 750 square feet per class unit[2] (giving almost 19 square feet per pupil in each classroom), achieved in the early 1970s mainly through a reduction in circulation areas and a judicious modification of classroom dimensions involving the incorporation of wet practical areas, toilets and cloakroom accommodation into the classroom itself. No increase either in the overall size of the building or in its cost resulted from these changes. The conservation of corridor space in particular also led to the provision at this time of larger and more multi-useful general purposes areas which had begun to replace the more costly and less flexible assembly hall towards the end of the 1960s, while the incorporation into the classroom of wet areas, toilets and cloakroom facilities (separate cloakrooms were replaced by mobile coat racks), combined with the introduction of textile floor covering in most of the classroom floor space, produced a more congenial atmosphere in that relatively small space where teachers and pupils spend most of their working day.

Within the classroom too, more movable furniture adaptable to different age groups and educational uses has added to and complemented the pupils' tables and chairs which replaced the old-fashioned, rigid dual desks in the early 1960s (see Plan 2 for some examples of this new type of furniture provision). Improved lighting features and display facilities have also contributed towards the evolution of more effective teaching spaces, while the introduction of remedial teaching rooms in large schools, in addition to the library provision of the 1960s, has served to augment the classroom area as a learning resource. The arrival of courtyards and patios which enable an extension of the teaching/learning situation out of doors when and where appropriate, along with the provision of hard and soft play areas, complete the scene presented by today's mostly single-storey, school buildings. Many of these design and layout features are represented in the Office of Public Works' current standard plan of an eight-classroom building shown in Plan 3.

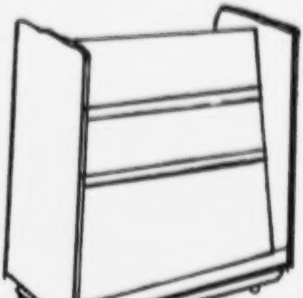
By far the most striking and innovative feature of Irish primary school design in the era of the new curriculum has, however, been the introduction of co-operative teaching in shared areas. This concept embraces many of the principles associated with open and semi-open plan British schools of the 1960s and 1970s, and marks Ireland's first consciously planned, yet tentative, departure away from the integrated, self-contained classroom box structure. Not merely a design construct, it incorporates two elements, a pedagogic aspect as represented by co-operative teaching, PLAN 2 Drawings of some items of school furniture introduced after the advent of the new curriculum, 1971.



Workbench/nature table

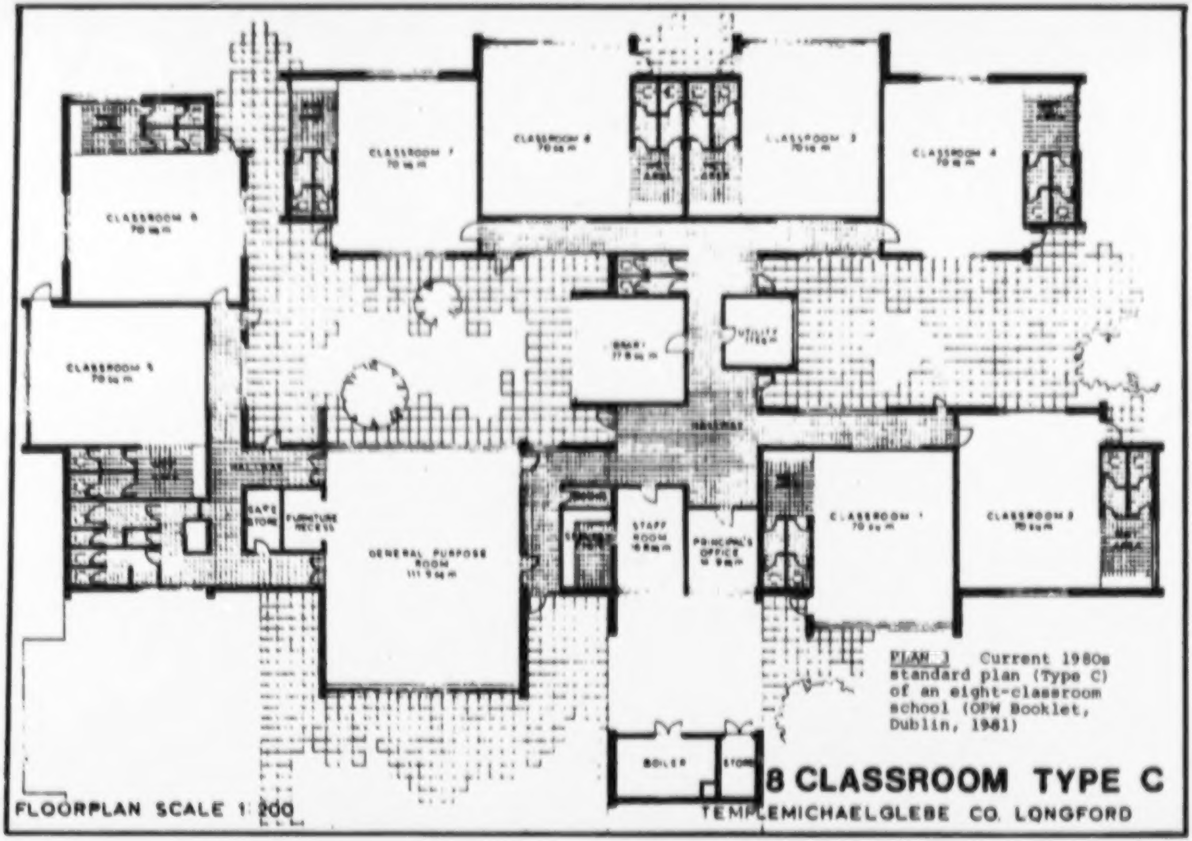


Trolley cupboard with
display unit



Book trolley

SOURCE : Office of Public Works, "National School Furniture, Series NCF (New Curriculum Furniture)", booklet of furniture details issued by the Office of Public Works, Dublin, 1971

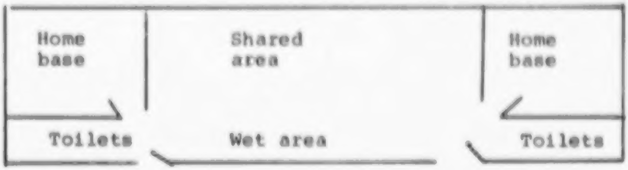

CLASSROOM 6
70 sq m
CLASSROOM 5
70 sq m
CLASSROOM 7
70 sq m
CLASSROOM 8
70 sq m
CLASSROOM 3
70 sq m
CLASSROOM 4
70 sq m
CLASSROOM 1
70 sq m
CLASSROOM 2
70 sq m
WET AREA
HALLWAY
SAFE STORE
FURNITURE RECESS
GENERAL PURPOSE ROOM
111.5 sq m
STAFF ROOM
PRINCIPAL'S OFFICE
BOILER
STORE
8 CLASSROOM TYPE C
TEMPLEMICHAELGLEBE CO. LONGFORD
FLOORPLAN SCALE 1:200

PLAN 3 Current 1980s standard plan (Type C) of an eight-classroom school (OPW Booklet, Dublin, 1981) and an architectural accompaniment to this device: shared areas.

In design terms a shared area module consists of an area usually equivalent in size to two traditional classrooms (1,500 square feet), but divided into two equal-sized class bases of 300 - 400 square feet each and with a large central-shared area of about 900 square feet within which is usually contained a tiled section with sink units for practical activities and an en-suite toilet block. The space and the children normally found in two separate classrooms are shared in this unit by two teachers who attempt to co-operatively draw up and implement a programme making use of home bases (so-called because they provide a fixed, identifiable locale for each separate class) and shared area. Diagram 1 shows the layout of a typical shared area unit, while some further variations are to be found in Plan 4.

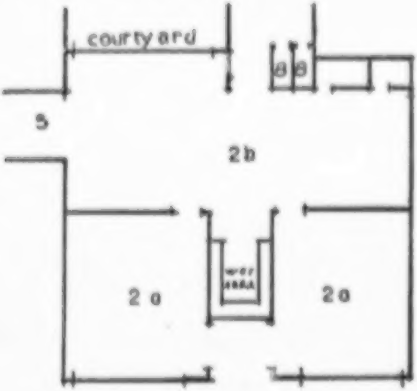
DIAGRAM 1

A TYPICAL SHARED AREA UNIT



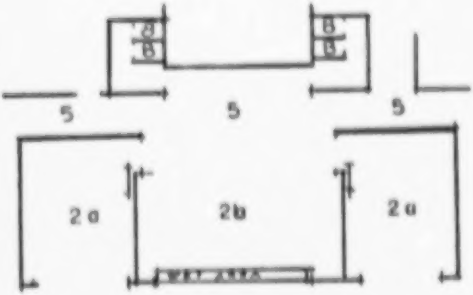
The uses to which shared areas are put obviously vary with the co-operative practice of the teachers who man them. Ideally, optimum use should be made of all three sections of the unit, with the two classes divided into groups in such a way that they are indistinguishable as separate classes. The home bases are eminently suited to small group work and direct teacher instruction, while the central shared area can be used for pupil-directed

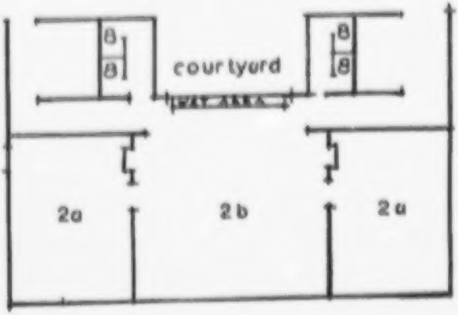
PLAN 4 Three possible shared area unit layouts, 1970s.


courtyard
8
8
5
2b
WET AREA
2a
2a

KEY:

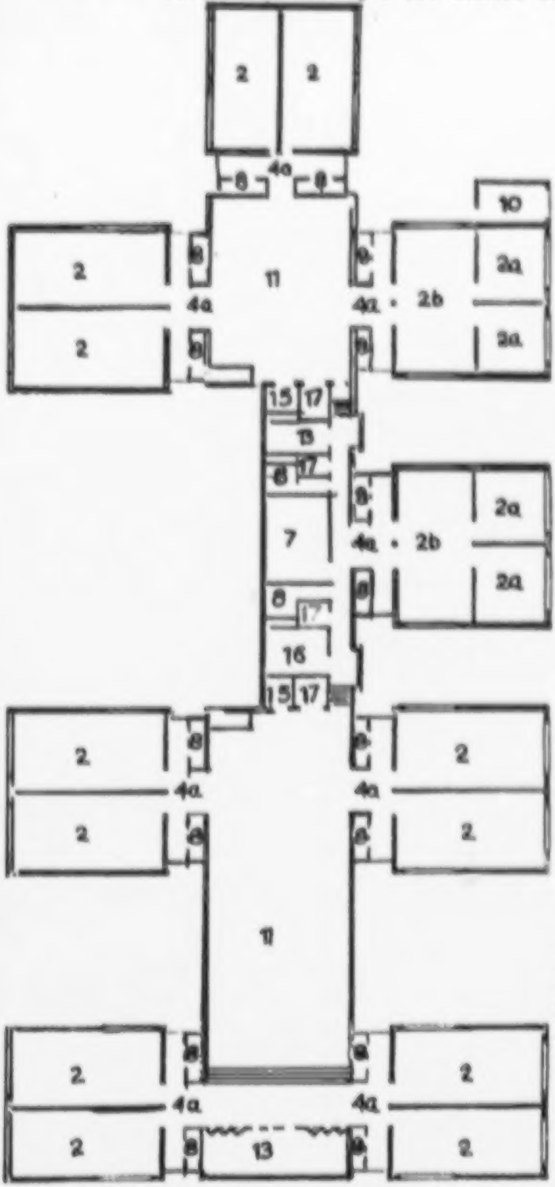
2a	Home base
2b	Shared area
5	Corridor
8	Toilets


8
8
8
8
5
5
5
2a
2b
2a
WET AREA


8
8
courtyard
8
8
WET AREA
2a
2b
2a

SOURCE : Department of Education, Co-Operative Teaching in Irish Primary Schools, p. 57.

PLAN 5 Standard plan of a sixteen-teacher Irish national school containing a 25% shared area provision.


2
2
4a
8
8
10
2
2a
8
11
4a
2b
2a
2
8
8
15
17
13
17
8
8
2a
7
4a
2b
2a
8
8
17
16
15
17
2
8
8
2
4a
4a
2
8
8
2
11
2
8
8
2
4a
4a
2
8
13
8
2

KEY:

2	Classroom
2a	Home base
2b	Shared area
4a	Cloakspace
7	Teachers' room
8	Toilets
10	Boiler house
11	General purposes room
13	Library/medical inspection
15	Kitchen/servery
16	Principal's room
17	Store

SOURCE : Department of Education, Co-operative Teaching in Irish Primary Schools, p. 55.

activities, thus making the whole unit an ideal design accompaniment to the new curriculum. Use is also made of the home bases to bring together each separate class on occasion (the beginning and end of each day, administrative duties, religious instruction), and this helps to safeguard the pastoral element so vital in the pupil/teacher relationship at primary school level. The size of the central shared area, on the other hand, allows both classes to be combined for singing, or for the showing of films or filmstrips, thus fostering a co-operative sense of communality between both class groups.

In 1980 there were some 291 shared area modules in 127 schools around the country, centred chiefly in the larger sixteen-teacher schools which are located in urban areas of high population density, such as Tallaght and Clondalkin in Dublin, and Togher in Cork.[3] The earliest shared area schools built about ten years ago contained a twenty-five percent shared area allocation, i.e. a sixteen-room school would have two shared area units housing four class groups, as in Plan 5, but of late, the Department of Education has tended to favour a fifty percent provision for co-operative teaching and has no objection to the erection of a school composed entirely of shared areas if the school management requests it, as has occurred in a certain number of cases.

THE SCHOOL BUILDING AND THE NEW CURRICULUM

The forces and influences which helped to shape the 1971 new curriculum had given rise to international, and more especially European, concern in the 1960s about the design of learning spaces in the primary school. New architectural directions and dimensions were mapped out at conferences on school design, and Ireland's participation at these, combined with visits by representatives of the Department of Education and the Office of Public Works to other countries to look at schools there - the influence of British school design was to prove the most decisive - provided the main design criteria for developments in primary school building in this country over the last decade.

The emergence in the 1970s of the design and layout features described earlier should also be seen, however, as elements set clearly within an Irish educational context, and integral to the tenor and operation of the new curriculum. That programme itself recognised that the existing architectural provision could not hope to cater for the new demands which a more active and open curriculum imposed upon the school building,[4] and reiterated the thinking expressed in a 1969 prologue to the new curriculum that school planning would have to respond to the new educational requirements shortly to materialise.[5] The Office of Public Works too has acknowledged that it was the new curricular direction taken by Irish primary education in 1971 which was the prime factor in the developments in school design which occurred subsequently.[6]

Changes in school design which have taken place, or which may occur in the future, are officially viewed, against a backdrop of cost limits, as being occasioned:

> . . . by expertise and scientific and technical innovation in the field of architecture, by standards of lighting, sanitation, ventilation and heating, but mainly by educational changes, i.e. changes in teaching methods, in teaching philosophies and in the needs of children as perceived by discerning teachers and educators.[7]

This primacy attached to educational considerations is to be found in the layout of learning spaces in Irish primary schools which reflect the emergence of a new relationship between teacher and pupils and a new way of working dictated by the emphases of the new curriculum. The size, shape and layout of classroom spaces today are probably the clearest manifestations of this curricular influence on school design.

The more generous allocation of floor space in the teaching areas which allows for greater mobility and facilitates a type of class organisation involving group activities and individual work is a clear reflection of a child-centred, activity-based curriculum. These concepts form the basis too for the development of the more varied, adaptable and multi-useful furniture provision. Wet/practical areas are a response to the value now attached to art and crafts and project work, while improvements in display space arise out of the movement towards a freer expression and presentation of pupil-directed activities.

Improvements brought about in the physical environment of our learning spaces have contributed to the emergence of a more comfortable and attractive atmosphere and ambience for teachers and pupils, and have in turn facilitated the educational process. Textile or carpeted floor covering, apart from being less institutionalised and more homely and comfortable than previous wooden or tiled floor surfaces, has also answered the needs of a more active curriculum by absorbing the increased noise level occasioned nowadays by greater and more frequent movement of pupils and furniture. En suite toilets replicate the more natural and convenient domestic situation, and augment the socialising benefits deriving from this with a flexible usage pattern which takes cognisance of the freer movement of pupils throughout the room. Improved lighting facilities, both natural and artificial, combined with more colourful decor of walls and ceilings, have produced brighter, more attractive classrooms which promote an interest in, and an ease in responding to, the school programme. The learning environment has been further enhanced by the lowering of ceiling heights which has resulted in particular in the creation of a homely atmosphere more in scale with the children themselves.

The other learning spaces in the school which accommodate the operation of the programme can also be seen as respondents to the orientation of the new curriculum. The general purposes room, now provided in all new schools, is primarily designed as an area for physical education and indoor games, but is also used for other new curriculum activities such as music and drama, and of course serves too for the showing of films, for general assemblies of the whole school, and for community purposes outside school hours. A greater emphasis on the importance of reading and communication skills, and their relevance in particular to the discovery learning aspect of the programme, has provided the basis for the provision of library facilities, while remedial rooms, recently introduced into larger schools, demonstrate an acknowledgement of the concern for the needs of backward pupils and pupils with learning difficulties. Increased storage space has evolved in response to the greater use of a variety of items of educational equipment including projectors, record players, tapes and filmstrips which have become an integral part of the operation of the new curriculum.

That programme too has seen the extension of learning experiences beyond the walls of the classroom and into the school's external environment. Gardens, patios and courtyards have emerged to facilitate this movement, particularly in the area of social and environmental studies. The face which the school now presents to the world derives also in part from the openness and freedom enshrined in the new curriculum. No longer a daunting building cut off from the local area by high railings and walls, the modern Irish primary school's outer appearance is attractive and inviting, with a bright facade and more open, easily identifiable entrances and driveways which signal an invitation to pupils, teachers and parents to participate in the learning process.

The most innovatory feature of Irish primary school design today, co-operative teaching in shared areas, is especially notable for the way in which its layout directly corresponds architecturally to the curricular emphasis of the current school programme. The various sections of the shared area unit are ideally suited to the practice of group teaching and to the needs of the child individually pursuing knowledge or discovering something for himself. A structure which allows two teachers to co-operatively implement a child-centred programme throughout a number of teaching spaces, as shared area teaching does, is capable of producing an adventurous, integrated learning environment which permits children to participate more actively in their own education.

Shared areas were especially devised also to promote the important socialising aims of education, involving co-operation with others, contained in the new curriculum. Their layout encourages just such a spirit and mode of co-operative work and social intercourse, the teachers providing the vital behaviour models for this concept. The shared teaching environment, with its freer, more flexible organisational structure, is also conducive to the development in the child of self-reliance and independent work habits, yet its more cautious adoption of open planning than that found in today's British schools enables it to be safely absorbed into the more traditional pedagogical pattern of Irish primary education.

While the new design features of today's Irish primary schools could have evolved in the normal course of school architecture here, and may be viewed too as products of a certain social awareness and force propagated chiefly in the 1960s and aided by developments at that time in building techniques (prefabrication, standardised construction materials and fittings), their essential purpose and emphasis clearly mark them out as deriving primarily from curricular influences and motives. In 1971 the time was ripe and the circumstances were propitious for the development of a positive and clear relationship between the school programme and the design of learning spaces which was to give precedence to the educational input.

Although economic factors have always played a prominent role in school building in this country, and must be given even greater consideration by planners today, financial pressures and dictates have not brought about any diminution in the quality of the school building provision. The fact that an increase in floor area was achieved at a time of reduction in the pupil/teacher ratio and that the newest design concept, shared areas, actually cost slightly more to build than conventional classrooms, is a clear indication that educational considerations come before cost regulations.

The primacy of the curricular function in Irish primary school design then, clearly motivates the thinking behind school planning and building here, yet, as the Department of Education has pointed out, "specially-designed teaching units or modern furniture do not constitute new approaches; they merely facilitate them".[8] How the learning spaces within schools are actually utilised as educational devices and instruments, and the consequent problems and difficulties arising out of the use of today's school buildings, are vital considerations in an evaluation of the relationship between school design and the curriculum. To do them full and proper justice, however, these important questions must await another forum.

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1 Department of Education, Statistical Reports 1971/72 - 1981/82 (Dublin : The Stationery Office); no figures are yet available beyond the school year 1981/82, but judging by the number of schools built annually in the decade 1971 - 1981, it would seem fair to assume that the total figure for the whole period between 1971 and the present has now topped the 500 mark.

2 Office of Public Works, "National Schools. Planning Data", booklet issued by the Office of Public Works, Dublin, 1974, revised 1978, p. 2.

3 Department of Education, Teagasc Comh-oibritheach in Achair Rannphairtiochta (Co-operative Teaching in Shared Areas), unpublished report of a survey conducted by the Department of Education on Shared Areas, 1980, pp. 28, 30.

4 Department of Education, The Primary School Curriculum : Teachers' Handbook, Part 1 (Dublin : Browne and Nolan, 1971), p. 16; it is noted that one of the major obstacles to the successful implementation of the new programme was "The traditional-type school building with its small classrooms and cumbersome furniture".

5 Department of Education, All Our Children (Dublin : Department of Education, 1969), p. 14.

6 Office of Public Works, "National School Furniture", Oibre 10 (August 1973), 12; Office of Public Works, "National Schools. Design Notes", booklet issued by the Office of Public Works, Dublin, 1978, p. 1.

7 Department of Education, Co-operative Teaching in Irish Primary Schools, (Booklet of Proceedings of a Seminar held in January, 1976), p. 10.

8 Ibid., p. 74.

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TEACHING THE LOGIC OF SUBJECTS

Kevin McDermott and Peter Caulwell

The paper argues that many of the difficulties encountered by students in second-level schools are subject based. If a teacher is to help a student master a subject, the teacher must have a clear view of the nature and composition of his/her subject. In order to know a subject teachers must engage in a process of reflection and questioning. The paper proposes a framework within which this process may occur. We apply the analytical framework to two subjects, and point out some of the implications suggested by our analysis.

The framework proposes six categories under which each subject may be examined. These are:

1. categories and distinctions : the conventional categorisation of knowledge within a subject.
2. Concepts/understandings: the fundamental concepts which have to be mastered in the subject.
3. Judgements : the kinds of judgements which are brought to bear in 'doing' a subject.
4. The language of the subject : the characteristic ways of speaking and writing in the subject.
5. Experiences : the experiences which constitute the 'doing' of the subject.
6. Knowledge and skills : the basic mental and eye-hand skills necessary in a subject.

INTRODUCTION : BASIC QUESTIONS

If, as we believe, teaching should concern itself with helping students make sense of a subject, then teachers must develop their own understanding of the subjects they teach. If a history teacher, for example, can give a coherent and logical answer to the question, "What is history?" then he/she is in a position to decide whether what goes on in the history class constitutes history in any meaningful sense.

Of course, the problem lies, precisely, in providing the answer. In order to facilitate our own attempts at describing English and Commerce, we began by reflecting on our common-sense understanding of the subjects, and asking ourselves a series of basic questions aimed at making conscious our assumptions and pre-suppositions concerning our respective subjects, and highlighting the gaps in our knowledge. The questions we posed were intended to establish the subject-matter of the subject, the ways in which we understand it, and the characteristic ways in which we act upon it, and write and talk about it. The kinds of questions we asked were as follows:

a) what is the subject matter, in broad terms, of English or Commerce?
b) What are the categories into which the subject matter may be grouped?
c) What are the forms of understanding that are required in the subject?
d) Are there concepts which are subject specific, or fundamental to an understanding of the subject?
e) How do we act upon the subject matter of English or Commerce? What kinds of intellectual activities do we perform in 'doing' a subject?
f) Are there characteristic ways of talking, writing about subjects? How do these differ from one subject to another?

g) What kinds of experience would enhance and develop an understanding of the subject?
h) What are the criteria employed by teachers in deciding whether a student has mastered a subject?
i) What kind of skills are required for the 'doing'of a subject?

These headings represent a theoretical framework for the analysis of subjects. This framework is by no means definitive, and is as good or as bad as the questions we posed. Further questioning would undoubtedly lend it a greater sophistication, but even in this form we believe it is useful and demonstrates the validity of a reflective attitude.

FRAMEWORK FOR ANALYSIS OF SUBJECTS

1 Categories/Distinctions

This refers to the conventional categories of knowledge within a subject. The kind of knowledge we have in mind is that which allows a student to obtain an overview of a subject. This kind of knowledge would be employed in the creation of a subject map.

2 Concepts/Understandings

By this is meant the fundamental concepts which must be mastered in order to achieve any degree of competency in a subject. In every subject there are a number of key concepts which are essential to an understanding of the subject. For example, in history, chronology is a key concept, the number line in mathematics, pressure in science.

3 Judgements

This means the kinds of judgements and criteria which are brought to bear in 'doing' a subject, and the constraints and limits within which these judgements operate. What, for example, are the criteria employed in deciding whether a company is successful? These criteria might be wholly inappropriate in determining the social worth of what the company does.

4 The Language of the Subject

Here we have in mind the characteristic ways of speaking and writing in the subject area - a student's ability to speak and write in the subject in ways that are appropriate to the classroom and to the world beyond the classroom walls, and which satisfy the criteria of public examination. Here we have in mind elements of the following: subject vocabulary; typical phrases; visual symbols; diagrams.

5 Experiences

By experiences we mean the opportunity to engage in those activities which constitute the 'doing' of a subject, and not merely the memorisation or familiarisation with the knowledge and activities pursued by someone else. Hence, 'doing' history might involve the writing of a biography; or the compilation of primary source material, or role playing as distinct from merely reading the history text book. This category encompasses the whole area of the use of drama in the classroom, in the broadest possible sense.

6 Knowledge and Skills

Under this heading we have in mind some basic forms of knowledge, and some basic skills which equip students to study a subject, and which provide a foundation for further learning. We have distinguished three types of knowledge:

a) knowledge by acquaintance : this is the notion of "knowing about" or being familiar with something, for example "I know about geography, it deals with the world and with different places and countries".

b) Factual knowledge : the idea of "knowing that", for example, "I know that Paris is the capital of France", or, "I know that CO_2 is the symbol for carbon dioxide".

c) Knowledge of procedures : this is the knowledge of standard procedures involved in carrying out the operations of a subject, for example, "I know how to calculate compound interest", or, "I know how to collect oxygen".

The kind of skills we have in mind are twofold:

a) eye hand skills : these would include writing, drawing, controlled movement, handling instruments, using tools and measuring.

b) Mental skills : certain subjects require specific mental skills, for example, deduction, comparison, distinction, association, observation, contrast, synthesis and analysis. Some examples might be the distinction between multiplying and dividing in mathematics; the comparison between plant and animal life in science; the association of peat bogs with the location of power stations in geography.

There is considerable interdependence between types of knowledge and skills within any subject. An examination of these elements and how they build together in the doing of the subject should suggest how one would approach the subject and in particular the sequence of learning.

We are aware that this framework is not the only possible one, and that some of the categories are in need of further refinement, in particular that dealing with knowledge and skills. Notwithstanding these shortcomings, the framework provides a useful way of reflecting upon the nature of subjects, a point illustrated by the analysis generated in English and commerce.

THE ANALYSIS OF ENGLISH

1 Categories and Distinction

There are a number of broad categories into which we can divide the subject. These include the conventional distinctions between literature and criticism; reading and writing; poetry and fiction; drama and essays; critical and expressive writing; literary and popular writing. In some instances one of the terms in a pair stands in hierarchical relationship to the other. Many second-level students for instance do not experience "English" as an expressive art form. For them "English" is essentially concerned with learning the conventions of literary criticism.

Another interesting distinction is that between the received canon - literature - and everything else that is written and published. From a teacher's point of view, there is a necessity to question our attitude to the existing categories, and, more fundamentally, the way in which we divide literature into two 'camps'. This question is all the more urgent in view of the practice in many schools to prescribe popular literature for the

Group Certificate, and remedial classes, and to prescribe "literary" texts for the "bright" student. The difference does not lie solely in content. In the "popular" end of things, the encounter with the text is direct and personal, and students are often encouraged to respond to the text in terms of their own experience. Thus the reading of a text and the response to it becomes an act of self-reflection and creation. For the "bright" students, the encounter with the text is mediated by the application of a rigorous but impersonal method of analysis. The reading of the text becomes intellectual discipline.

Both approaches have much to recommend them, but it is surprising that students of recognised intellectual ability are not encouraged to explore their self understanding in and through literature and that "weaker" students are not taught literature in a way that might develop their powers of reasoning. For the "bright" student the opportunity to employ literature as a means of exploring the self is further curtailed by the failure of many teachers to develop the idea of the subject as an art form and not merely a literary language. Thus, an elementary consideration of the categories and distinction draws attention to large areas of the subject which are neglected in the English courses currently available in post-primary schools.

2 Concepts/Understanding

It is not within the scope of this paper to explore the many concepts which inform "English" but it will dwell on the concepts of meaning and form. A useful way of thinking about meaning is to examine the difference between the language of mathematics and the language of poetry. In the former, the language is denotative, that is each sign or symbol has one clear and unambiguous value or meaning. On the other hand, much of the language of poetry is "rich", by virtue of the fact that the "signs" of poetry cannot be ascribed a fixed and permanent meaning. Poetic language is essentially connotative. If we think of meaning in terms of a continuum with denotative at one end, and connotative at the other, the making of meaning involves a decision to "pitch" the use of language at some point along this continuum. This is essentially a matter of choosing words and phrases.

Then the matter of form comes into play - the way in which words are linked to form phrases, phrases into clauses and so on into larger units of discourse. Form is essentially a matter of sequencing.

Meaning is also liked to the variety of things we can do in and through language; assert; tell; command; put forward opinion; present a self and so on. There is a close relationship between what we do and the formal features (voice, mood) which organise language into various kinds of utterances.

The concepts of "meaning" and "form" suggest many interesting possibilities for the teaching of "composition" in second-level schools. Initially there is the task of acquainting students with the range of meanings and style employed by writers, and the variety of forms available to them. Secondly, there is the process of discovering the kinds of meaning a student may choose to make, and the appropriate style and form in which to frame this meaning. This process is both descriptive and enactive. Firstly, it is descriptive in that a student has to identify the kinds of meaning he/she wishes to make and then describe the language and sequencing of that language best suited to the purpose in hand. For example, a student may wish to write personally and reflectively and decide that the language should be connotative; the piece written in the present tense; and the phrase (as opposed to sentence or paragraph) the unit of sequencing. Secondly, it is enactive in the sense that the student must form a knowledge of the correct procedure and carry this through in the act of writing.

3 Judgements

Every effort to write involves a writer in a series of judgements of the kind referred to in dealing with the concepts of meaning and form. Students can be given formal guidelines in this area.

More interesting, perhaps, is the area of critical judgement in literature. How do we judge, on one hand, the "literary" worth of a text and on the other, judge the "greatness" or general worth of that text?

In exercising the "literary" judgements we often invoke a norm, as in the idea of a typically romantic form. The essential characteristic of "romantic" can be indicated to students; we also apply "aesthetic" criteria such as consistency, unity and dimension - these concepts can also be taught and exemplified for students or a text can be compared and contrasted with other works of literature. However, once we have established the literariness of a text, there is still the considerable problem of deciding its relevance, worth or greatness. These considerations involve the reader in both personal and extra-literary judgements, which may be of a social, political or moral nature.

F. H. Leavis can suggest, for example, a great tradition of English novelists, all of whom share a quality of moral seriousness. This is not strictly a literary judgement. However, if the criterion employed in judging a writer like Lawrence is political, then we might not confer the accolade "great" upon him. Hence, of course, I betray my own political bias. However, it is in the exercise of these kinds of judgements that literature is brought into an immediate and dialectical relationship with life and with the reader, and speaks more urgently to its readers. It is through the personal dialogue with literature that a reader can reflect upon reality and the self and know both more surely.

In the area of judgements we should place greater emphasis on the extra-literary judgements I have referred to, and encourage more subjective responses to literature, especially for our senior students. In the Irish context, in view of the censorial nature of our attitude to literature, it might be important to demonstrate the limits and constraints within which most judgements operate, and avoid an attitude to literature that is absolute and categorical.

4 Experiences

If one reflects on the experiences which constitute the 'doing' of English then one is immediately struck by the very limited experiences that school offers students. I think the point is clearly illustrated in considering two important experiences in English: the reading of poetry and writing.

The reading of poetry is essentially a private act.

Frequently a reader goes back to a poem before any sure sense of a relationship is established. Most poetry expands the possibilities of the self by inviting the reader to contemplate the poet's exploration of his/her self. The response to poetry is essentially meditative and silent. This kind of response is rarely encouraged in the classroom where the demand is for a public and immediate response. Yet it seems that to deny students this kind of private space in relation to poetry is almost to destroy the experience of reading poetry itself.

The other experience (and concept) neglected in the classroom is that of audience. Students write an astonishing quantity in their school careers, but rarely do they have an audience for their work in any meaningful sense of the word. A literary text takes on a life of its own when it ceases to belong to an author and is "possessed" by an audience. Most school authors rarely have this experience.

IMPLICATIONS FOR TEACHING

An application of our framework to English raises a number of important questions on our current practices in the classroom and suggests some areas for further consideration.

Firstly, there is the question of what we teach and to whom, and the justification or desirability of having two versions of English in our schools - that of the received canon, and that of popular and/or contemporary literature.

Secondly, there is the question of the dominance of literary criticism over expressive writing. Related to this issue is the formal and impersonal nature of the responses we demand from students to literature, and the limited possibilities we establish for students' own writing.

Thirdly, there is the question of the judgements we make in reading and responding to literature, or, as writers, in choosing a form and style of writing. This seems to me to be an area of immense interest and one in which work remains to be done, especially with regard to the extra-literary judgements that come into play in dealing with literature, and the limits and constraints within which these operate.

THE ANALYSIS OF COMMERCE

1 Categories and Distinctions

The traditional categories within commerce as a subject have been book-keeping, office procedure and business knowledge, the latter encompassing anything not easily fitted into the other two. These categories are still useful and valid for organising topics and work plans.

However an important distinction must be made between teaching topics in each category and helping the pupil to get an overall view and understanding of the commercial world. If the teacher can achieve this overall view of the business world, its constituents and how it operates then the pupil has a framework within which to locate and understand the various topics/categories that he/she deals with. This is an essential objective from the outset.

The second distinction to be made is between the different agencies operating in the business world, e.g. government, private companies, semi-state bodies, voluntary bodies, trade unions, individuals. The teacher should explain to the pupils the role of each of these entities in the business world and the ways in which they affect each other.

This latter distinction should highlight to the teacher the role of the individual as worker, manager, trade unionist, consumer, entrepreneur and so on, and the knowledge and skills the pupil will require to fulfil these roles in the future. This is the teaching of life skills.

2 Concepts/Understanding

In looking at commerce, i.e. the business world, one can identify a number of general concepts which are central to it. These would include: trade, money, wealth, assets, production and growth, investment, risk, profit, interest, credit, debt, liabilities, financial records, communication, employment. An understanding of each of these concepts must be established for the pupil as they will or should continuously recur in teaching and doing the subject.

Many other concepts will need to be understood in dealing with specific topics, for example the concept of insurance, which has integral to it the general concept mentioned above of risk.

Other concepts of this kind would be those of an accounts system, double entry book-keeping, and the concept of "standard practice" which applies to documents and other areas. Teachers should be conscious of the need to teach these concepts, illustrate them and exemplify them to the pupils and check they are properly understood by the pupil in doing the subject.

3 Judgements

Consideration of the judgements to be made in commerce and the context within which they are made brings forward three features which should inform the teacher's approach in the classroom.

Firstly, judgements will have to be made based on various criteria, for example, profitability, growth, risk, efficiency, employment. The actual judgements or decisions made will depend upon the perspective from which one views the situation. The pupil should become aware of the different perspectives of the government, the company, the union, the society, the individual and of other groupings operating in the commercial world.

Secondly, in certain defined areas such as book-keeping and office procedures the judgements to be made and the criteria to be used are more rigidly defined and discretion limited. For example, a letter of complaint should be formal, factual and assertive even though it may be written to someone well known to the writer. The pupil must learn when this type of judgement and criteria should be applied.

Thirdly, the pupil should learn that strictly commercial criteria cannot be applied in a vacuum and that social, personal and moral criteria must also influence and determine the judgements made by everyone in the commercial world. For example, the automation of a factory may increase the company's profits and efficiency, but may also put people out of work or put an undue workload on workers downstream. Knowledge of these areas of judgement should be central for the pupil in commerce, so that he/she can do the subject effectively without losing a view of the greater context within which business decisions are made.

4 The Language of the Subject

There is a definite language and vocabulary used in book-keeping and accounts both within the school and the professional world. The pupil must learn this language and also how to translate it into layman's language to explain to people not involved in accounts. There is some special vocabulary in commerce, but more significant for the teacher and pupil is the style of speaking and writing in the subject. The language used should be analytical in style with clear definite meaning, working through step by step evaluation, followed by the statement of a conclusion. Words describing this style would be: clear, concise, informative, factual, analytical, decisive. The pupil must be shown why this style of language is appropriate to doing the subject and be encouraged to use it effectively.

5 Experiences

Since the world of business lies outside the classroom and since it is a world of "doing", one should try to give the pupil experiences which still enhance his/her understanding of that world. Experiences that could be considered are:

visits to companies to observe and discuss what happens there;
visits to offices to see and learn about the office environment and what goes on there;
interviews with people working in business;
hands-on access to business equipment, computers, office machines;
work experience in a company;
a visit to a bank to open an account.

Inside school, using real-life sample materials and documents will help the pupil to grasp what is involved in doing certain activities.

The pupil should be encouraged to become involved with the commercial aspects of the home for instance:

(i) banking : lodgements, withdrawals, statements, cheques and other payments, interest paid and received;
(ii) insurance : types of insurance, policy documents, premiums paid, claims made;
(iii) wage packet analysis : gross income, tax, P.R.S.I., other deductions, net income;
(iv) budgeting : analysis of family income and how it is spent;
(v) consumerism.

From this the pupil can learn a great deal about commerce as it applies to and is used by the individual/consumer. Well thought out and well directed experiences can improve greatly the pupils' understanding of the relevance of commerce as a subject and help them make sense of the subject. One pupil's experience shared with others can also have these effects.

6 Knowledge and Skills

Firstly, under this heading we can identify knowledge by acquaintance. Much of the business world is hidden from the pupil but much of it is also open to observation by him/her, through reading newspapers, reading signs, observing transport, watching T.V., seeing advertisements, family experiences and a myriad of other ways. This wealth of knowledge by acquaintance, though mostly superficial, can be an invaluable asset to the teacher in illustrating and taking examples from the pupils' own knowledge to explain a concept. This reservoir of knowledge can be broadened and deepened with direction and can prove an invaluable asset to teacher and pupil in doing commerce.

Secondly, there is the area of factual knowledge. The doing or understanding of commerce does not require the pupil to learn a large body of factual knowledge. However, some factual knowledge is essential to understanding and doing in commerce.

Example 1 : the names of the four main commercial banks are essential to being able to apply one's knowledge of banking procedures such as opening an account, making lodgements and withdrawals, etc.

Example 2 : knowing that the rate of VAT on foot is essential to preparing an invoice for supply of foodstuffs.

The teacher of commerce should therefore ensure that the pupil acquires the factual information necessary for the doing or understanding of the subject. It is equally important that the pupil learn about the sources of other factual information which he/she may require access to, e.g. directories, yearbooks, magazines, government publications.

Thirdly, there is procedural knowledge or "knowing how to". In commerce, like many subjects, there are a number of areas where knowing the appropriate procedure is sufficient for the pupil to be able to do the subject, for example: the writing of a business letter or preparation of a business lodgement.

Knowing such procedures can represent very useful business or personal skills and as such are valid things to teach and learn, even though a complete understanding of the reasons for the procedure would be a further desirable objective for the pupil. Teachers should identify such procedures and recognise and convey to the pupil their value on their own and within the overall context of the subject.

Finally under this heading we have skills; hand and eye and mental skills. In commerce hand and eye skills would be: writing, figuring, layout of figures in columns, drawing charts and diagrams, form filling, key board skills, operating office machines.

The commerce teacher should be careful not to take for granted the pupils' mastery of such basic skills nor should they be relegated to a position of no importance. Each one has a place and should be mastered by the pupil. Mastery here requires a hands-on situation and plenty of practice.

With regard to mental skills the full range of mental operations are required in mastering commerce, and different combinations are needed for different topics. The teacher should examine, at each stage, the mental skills needed, and demonstrate or give examples of the mental operations that will be required of the pupil in the doing of each part of the subject.

CONCLUSIONS

It is our belief that a reflective attitude on the part of teachers and a willingness to engage in a questioning process on the nature of their subject and their understanding of it would lead to a clearer and more logical approach to the teaching of all second-level subjects. An analysis of subjects, as per the framework presented in this paper, would inform both teachers and their teaching, and allow students to locate themselves in their various subjects.

A coherent overview of a subject would lend direction and purpose to the classroom practice of teachers. We would like to see teachers talking to their students about subjects and the rationale which governs individual subjects and the teaching of those subjects in the classroom. This would make explicit for the students many of the implicit assumptions and organising principles at work in the classroom from day to day. It would help to make sense of the subject for the student.

Implicit in much of what we say is the opinion that teachers do not reflect upon, or question the nature of the subjects they teach. There are a number of reasons which remove this necessity from teachers. A major factor is that the examination system creates its own version of what constitutes a subject and influences what happens in the classroom from day to day. Allied to this is the tendency of text-books to deal with subjects in the context of the state examinations. In other words, many teachers rely on text-books and on the examination system to supply a rationale of the subject, indeed to define the subject for them.

There is also a daunting task of beginning the process of reflection and questioning. The framework that we propose is a useful starting point. The publication of the consultative documents by the Curriculum and Examinations Board creates a climate in which reflection and debate on the nature and composition of subjects may be promoted. Our paper is intended as a contribution to that debate.

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POST-PRIMARY SCIENCE EDUCATION : EVOLUTION OR DEGENERATION?

B. Reidy

> The curriculum at present prescribed
> by the Department of Education for
> recognised secondary schools is still
> on the lines of that adopted in 1924.

This statement by the Council of Education in 1962 indicated the lack of attention paid to educational matters since the foundation of the state in 1922. It is my opinion that in respect of science education there was an actual deterioration in the quality of science education being provided in 1962 as compared with 1924. The Rules and Programme for Secondary Schools 1924/1925 indicated that at this time the science courses being provided fell into three categories: (1) preparatory course; (2) Intermediate Certificate; (3) Leaving Certificate.

The preparatory course was to be studied by students in the first two years of post-primary schooling and was designed primarily as a means of generating enthusiasm for science among pupils. The essential feature of this course was not its content but the approach it encouraged, i.e. experimental and observational. A major benefit which this course had was that it was non-examinable. This should have allowed teachers great scope to decide the aspects of the course which they would emphasise. Pupil activity could have been encouraged and a teaching scheme centred on pupil interests could have been followed. However, this course was not implemented to any great extent in schools. Here lies the first lesson from the history of science education, i.e. no new course or teaching method can hope to find a real existence in schools without adequate in-service training of teachers. What happened with the preparatory course was that the existing teachers who had been trained themselves in classical physics and chemistry were either unable or unwilling to implement the course. They were unable due to the fact that it involved an approach with which they were not familiar. Effective discovery activities and a teaching scheme based on pupil experience were not part of the training courses which these teachers had followed and consequently they were unable to promote this approach in the classrooms. The concept of a preparatory course was eventually dropped and only found prominence again in the idea of a transition year between primary and post-primary schooling in the middle 1970s. The question must be asked here as to why the Department of Education allowed this preparatory course to be dropped? Surely, a strong departmental influence could have been brought to bear to ensure its continuation, or, can it be implied that even at this early stage in our history, science education was a low priority area within the Department of Education? Certainly this preparatory course contained many of the elements which have been recently incorporated into science courses for children of this age group, and with its demise a chance was lost to inculcate a love of science and its methodology in young post-primary students.

The Intermediate Certificate programme in the early days of the state offered schools a choice of four courses. These courses were: (1) syllabus A; (2) syllabus B; (3) syllabus C (girls only); (4) syllabus D (non-experimental).

These were the courses in existence in 1962 when the Council of Education recommended that:

> . . . there should be one common science syllabus for junior pupils and it should contain suitable material in each of the three branches, biology, chemistry, physics.

To ensure that all students received instruction in each of the three disciplines the council also proposed that the Intermediate Certificate examination in science would have the following format:

> A paper might be set containing three questions in each of the sections physics, chemistry, biology with the requirement that a candidate must attempt at least one question from each section . . .

Following on the 1962 report new science syllabi were introduced in 1966. While the recommendation of the council with regard to a single syllabus was not accepted the range of courses was cut to two, i.e. syllabus A which contained elements of physics, chemistry and biology and syllabus B which had a wider content covering areas of physics, chemistry and other material of a biological/geographical nature. These courses were in operation up to 1973 when syllabus A was revised to include more biology and syllabus B was replaced by syllabus E which became an elementary course in junior science. These are the courses which are on offer at present. However, we are almost at the situation recommended in 1962 of a single syllabus at junior level. Table 1 compiled from the Statistics Report of the Department of Education for the relevant years, shows the participation rate in science courses at Intermediate Certificate level.

Table 1 shows that participation in syllabus A is approximately eight times that in syllabus E. The figures relating to the percentage of students who do not take science at intermediate level will have to be given special consideration when science becomes part of the core curriculum as is proposed in the recent statements from the Curriculum and Examinations Board (1984).

TABLE 1

PARTICIPATION RATE IN SCIENCE COURSES AT INTERMEDIATE CERTIFICATE LEVEL EXPRESSED AS A PERCENTAGE OF THE TOTAL NUMBER OF INTERMEDIATE CERTIFICATE STUDENTS

Y	A	E	N.S.
1977	61	7.7	31.3
1978	62.3	7.2	30.5
1979	63.5	7.9	28.6
1980	65.2	7.6	27.2

Key:
Y : Year
A : Percentage of students who sit for syllabus A examination
E : Percentage of students who sit for syllabus E examination
N.S. : Percentage of Intermediate Certificate students who do not take a science examination.

SOURCE : Statistical Reports of the Department of Education for the years in question

Obviously, there will have to be a provision of more science teachers and laboratory facilities if this concept is to become a reality. The feasibility of providing these teachers and the extra facilities must be questioned in the present economic climate. A vast expenditure on this area is the only means of implementing the proposal of science as a core subject at junior level. The real test of the state's commitment to science education will come when the finance to provide science for all junior pupils is requested.

Table 2 shows the participation rate in each of the junior level courses expressed as a percentage of the population who take science at Intermediate Certificate level.

TABLE 2

PERCENTAGE OF SCIENCE STUDENTS AT INTERMEDIATE CERTIFICATE LEVEL WHO SAT FOR EXAMINATION IN SYLLABUS A OR SYLLABUS E

Y	A	E
1977	89	11
1978	92	8
1979	89	11
1980	90	10

Key:
Y : Year
A : Percentage of science students who take syllabus A examination
E : Percentage of science students who take syllabus E examination

SOURCE : Statistical Reports of the Department of Education for the years in question

Table 2 shows that syllabus A is covered by approximately 90% of science students. So, in effect, we are almost at the position proposed by the Council of Education (1962) of a single science syllabus at junior level. However, this could prove to be a cause for concern in the future. Coomber and Keeves (1973) in their study Science Education in Nineteen Countries indicate that at this level many countries opt for an integrated approach in the teaching of science at this level (an integrated approach is one where material is not divided into units of physics, chemistry, biology as separate disciplines but concepts are dealt with under a general heading of science). Most of the recent developments of science programmes for junior students in Britain favour this integrated approach.

Efforts have been made to adapt syllabus A to an integrated format and in this regard the work of the curriculum development unit at T.C.D. is to be applauded. This unit has played a central role in the development of I.S.C.I.P. (integrated science curriculum innovation project) which is at present on trial in a number of schools in the country. However, this programme is really trying to impose an integrated framework on a programme which was never intended to be such and therefore can have only limited success in its efforts. So at junior level the programme which the majority of our students follow is out of line with that followed in other countries. However, an alternative does exist, i.e. syllabus E. Why is there such a poor participation rate in syllabus E? Discussions at meetings of the Irish Science Teachers' Association (I.S.T.A.), Cork branch, indicate that teachers do not choose syllabus E for a number of reasons. Amongst the reasons enumerated are:

(1) as it is an integrated approach there is a fear that it could not give a proper foundation to students who subsequently study physics, chemistry and biology as separate disciplines at Leaving Certificate level.

(2) The experimental approach involved would be too difficult to implement when the science facilities in schools are taken into account.

With regard to point (1) above, I could not identify any study which had tried to relate the content of the junior level courses to the senior cycle courses in physics, chemistry, biology. Therefore I carried out such a study (Reidy, 1984) which showed that this was not a valid criterion for the selection of syllabus A over syllabus E. Furthermore, the low participation rates in Leaving Certificate science courses (Table 4) would question whether this is a justifiable basis on which to choose a junior level syllabus.

With respect to point (2), i.e. facility provision, there is obvious validity in this statement. The Rules and Programme for Secondary Schools 1984/1985 states that the proper implementation of syllabus E requires not alone laboratories but an animal house, greenhouse and garden. Clearly, these facilities are not available in many schools, and, therefore, these schools cannot opt for this syllabus. Therefore, for most schools there is not a real choice of science courses at junior level. However, I would point to a third reason why the uptake of syllabus E is so low. As with the Preparatory Course in the 1920s, this course demands a teaching process which is alien to the majority of science teachers whc have come through a classical physics, chemistry and biology training. Therefore, the provision of an integrated science course at junior level has as a pre-requisite the provision of in-service courses for teachers. Without this there will be little or no change in the process of science education at junior level. A further problem is evident from the report of the A.S.T.I. (1982) which shows that in many cases science classes can have in excess of 35 pupils. The provision of a practically orientated course in such a situation places an intolerable burden on teachers, who, in the absence of ancillary laboratory personnel are required to prepare all materials and apparatus for these classes. This work has to be carried out in association with the normal workload of a teaching day. Public service cutbacks have also had an effect. In a situation where a science teacher leaves a school he/she might not be replaced. The science workload is then dispersed among the other science teachers or, altrernatively, the provision of science courses within the school is diminished. This could lead to a situation in future years where the percentage of Intermediate Certificate students who do not study science might increase further. These are just some of the problems which must be analysed by the Curriculum and Examinations Board if an improvement is to occur in junior level science education.

As for senior cycle science courses the situation is quite similar. The problems which exist for junior cycle are also having an effect at senior level. The courses which were recognised in the curriculum of the senior cycle in the early days of the state were: (1) physics; (2) physics with chemistry; (3) chemistry; (4) botany; (5) physiology and hygiene; (6) agricultural science; (7) domestic science; (8) general science.

The uptake of these subjects by students is shown in Table 3.

It is interesting to note that even at this stage the biology-based subjects were female dominated while chemistry was male dominated. However, the figures for physics are interesting in that they show almost equivalent participation in this subject by males and females. This situation has deteriorated to the extent that at present the ratio of males to females who study Leaving Certificate physics is approximately 8 : 1. In 1969 a single biology course was introduced to replace both the botany and the physiology and hygiene courses. There were also changes in physics and chemistry and a new combined course in physics and chemistry was introduced. The biology course was further revised in 1977. But what is the present position in respect of participation in the science subjects at Leaving Certificate level? Table 4 sets out the pattern.

TABLE 3

THE NUMBER OF MALES AND FEMALES SITTING FOR EXAMINATION IN SCIENCE RELATED SUBJECTS FOR THE LEAVING CERTIFICATE 1957

Subject	Boys	Girls	Total
Physics	3492	3173	6665
Chemistry	732	39	771
Chemistry and Physics	155	36	191
Botany	81	304	385
Physiology and Hygiene	60	1683	1743
Agricultural Science	159	-	159
Domestic Science		2074	2074
General Science	219	135	354

SOURCE : Report of the Department of Education for 1957

The interesting feature of Table 4 is the male dominance of chemistry and physics. In particular, the figure for physics has many ramifications. Overall, the rate of participation of males and females in physics is low. Consequently, many of the students who enter science faculties in this country experience difficulties with the subject. Physics is studied by students in first year and then tends to be abandoned by many students who go on to take general science degrees. If these graduates enter the teaching profession they are expected to teach physics as part of junior level courses. If their own knowledge of physics is less than their knowledge of chemistry and biology then it is possible that this subject will be neglected in the

TABLE 4

THE PARTICIPATION RATES OF MALES AND FEMALES IN SCIENCE SUBJECTS AT LEAVING CERTIFICATE 1977-80

Y	MB	FB	MC	FC	MP	FP
1977	36.0	52	30	10	25	3
1978	38.0	57	28	11	25	3
1979	38.0	62	27	11	27	3
1980	40.0	63	29	12	21	3

Key:
Y : Year
MB : Percentage of male students who take biology examination
FB : Percentage of female students who take biology examination
MC : Percentage of male students who take chemistry examination
FC : Percentage of female students who take chemistry examination
MP : Percentage of male students who take physics examination
FP : Percentage of female students who take physics examination

SOURCE : Statistical Reports of the Department of Education for the years in question

teaching of junior science courses, receiving only the minimum coverage required. Therefore, it could be at this level that many post-primary students form a negative attitude to physics. A fully integrated science course at junior level would, in my opinion, be the most effective method of promoting the uptake of physics at senior cycle level.

But it is the opinion of many science teachers that the Department of Education, via the examination system, has made efforts to promote participation in physics and chemistry at the expense of biology. In 1983 the Central Applications Office prepared and The Irish Times published figures relating to the grades obtained by students in the various subjects in the Leaving Certificate examination. These figures are shown in Table 5. They show that the frequency of the higher grades in biology is significantly lower than in physics and chemistry. The importance attaching to these grades in respect of university entrance is well understood. With such a large number of students represented by these statistics and given the normal range of abilities within the population surely a valid examination should equal proportions of the various grades in each subject. These figures have led many teachers to speculate that a different standard might be in use in the grading of biology papers to make the attaining of high grades more difficult.

Another effort to correct the unequal distribution of students in the science subjects at senior level was contained in a change in the regulations for the granting of higher education grants which was introduced in 1981. The basic regulation is that to qualify for a grant a student must obtain grade C or higher in four higher or common level papers. However, since 1981 the regulations contain the following addition:

> . . . or in the case of a candidate who will pursue an approved course in science (including Agricultural science, or Engineering) grade C or higher grade in higher or common level paper in two of the following: mathematics, applied mathematics, physics, chemistry, physics with chemistry, agricultural science, technical drawing, agricultural economics.

Conspicuous by its absence from the list of subjects is

TABLE 5

GRADES OBTAINED BY PUPILS IN THE VARIOUS SUBJECTS IN THE LEAVING CERTIFICATE EXAMINATIONS, 1982, 1983

Subject	A	B	1982 Total % getting A or B	A	B	1983 Total % getting A or B
Irish	0.5	10.7	11.2	0.4	9.2	9.6
English	0.9	9.3	10.2	1.2	9.4	10.6
Mathematics	1.6	5.6	7.2	2.8	7.2	10.0
History	2.4	14.1	16.5	2.4	13.7	16.1
Geography	1.9	14.6	16.5	2.2	11.5	13.7
Latin	5.9	30.8	36.7	4.9	22.9	27.8
French	0.6	8.7	9.3	0.7	10.3	11.0
Spanish	1.2	18.4	19.6	2.5	21.5	24.0
Physics	2.7	15.2	17.9	4.9	19.5	24.4
Chemistry	3.2	15.8	19.0	6.2	23.2	29.4
Biology	1.4	13.8	15.2	1.1	17.0	18.1
Phys. with Chem.	3.7	19.8	23.5	8.0	30.9	38.9
Economics	2.4	11.9	14.8	2.2	16.8	19.0
Accounting	1.8	17.6	19.4	0.6	11.4	12.0
Bus. Org.	0.5	4.9	5.4	0.7	8.9	9.6
Art	1.7	14.0	15.7	2.1	16.3	18.4
Greek	36.4	36.4	72.8	1.1	44.4	55.5
Hebrew	0.0	0.0	0.0	0.0	25.0	25.0
German	2.1	17.4	19.5	1.3	14.2	15.5
Italian	6.7	13.5	20.2	9.1	22.7	31.8
Applied Maths	10.5	18.2	28.7	7.3	14.6	21.9
Agric. Science	0.4	18.6	19.0	0.7	32.9	33.6
Agric. Econ.	2.9	26.5	29.4	8.6	20.7	29.3
Mechanics	0.0	33.3	33.3	0.0	7.7	7.7
Economic Hist.	0.0	0.6	0.6	0.0	2.4	2.4
Eng. Workshop	0.6	22.5	23.1	0.0	17.3	17.3
Tech. Drawing	1.9	16.1	18.0	6.7	25.6	32.3
Building Const.	0.3	14.5	14.8	0.5	17.3	17.8
Music	3.5	27.0	30.5	0.3	25.7	26.0
Home Econ (S & S)	0.7	10.0	10.7	1.4	15.7	17.1
Home Econ (Gen)	0.4	11.3	11.7	1.3	13.0	14.3

The above table shows the percentage of the 18000 students who applied for university level places this year who had obtained As and Bs in higher level papers in the Leaving Certificate (common level papers are counted as equivalent to higher ones). The 18,000 students represent 40 percent of the Leaving Certificate cohort and would certainly include the vast majority of those getting As and Bs.

biology. This addition could be seen as an overt attempt by the Department of Education to divert students away from biology. If this is the case then in the light of the findings of the Economic and Social Research Study School and Sex Roles (1983) it is a futile exercise.

Over the past two years new courses have been introduced in Leaving Certificate physics and chemistry. Each of these courses seems to have a requirement for practical work. Despite the fact that these courses contain an amount of new material the provision of in-service courses for teachers has been less than adequate. Up to this time only two chemistry and one physics course have been provided by the Department of Education. Therefore it appears that the Department of Education does not yet realise the central role of these courses in curriculum development. As each of the new courses places greater emphasis on practical work than hitherto, it would have been thought that the Department of Education would have made provision for the allocation of ancillary laboratory personnel to schools. This did not happen. Instead, members of I.S.T.A. who foresaw that there was going to be a problem in this area negotiated with the Youth Employment Agency for the provision of laboratory technicians, on a temporary basis, to schools. While the scheme is inadequate the members of I.S.T.A. showed more foresight and initiative than did the Department of Education in this matter. This whole area indicates a lack of leadership from the Department of Education in the effort to bring about an improved process of science education in schools.

But will the new courses at senior level represent any real change in the process at classroom level? To ensure that practical work is done the following paragraph has been inserted into the Rules and Programme for Secondary

Schools 1984/1985:

> As the revised syllabus for physics has been drawn up on the basis that pupils will devote an appropriate amount of time to laboratory work, a candidate will not be admitted to the Leaving Certificate examination in that subject in any case where the Department considers that an adequate course of laboratory work has not been followed by such a candidate. For this purpose records of practical work should be kept and available for inspection.

There are a number of points arising from this statement:

(1) there is an implication that up to now the amount of practical work done was "inappropriate". However, it must be stated that the conditions which militated against the provision of practical work for the previous course still exist and will continue to do so without a concerted effort to improve the situation.

(2) There is an acceptance by the department that a record in a notebook is adequate evidence that the practical work was done. The weakness in this statement is obvious.

(3) There is no provision for credit to be given for the quality of practical work performed. This could be seen to encourage the situation where accuracy and precision, the hallmarks of good experiments, might be sacrificed in the effort to improve the quantity of practical work.

(4) Who will inspect the books? Could the two chemistry inspectors possibly examine the 7,000 chemistry notebooks? Consideration of this aspect has led teachers to the opinion that the copies of all students will not be examined. But, if the copies of some students are examined and they suffer the

consequences of inadequate practical work, while other students who might have even less practical work done are not examined and therefore are allowed sit the examination then obviously all students have not been treated equally by the examination system. This has serious consequences for the validity of the whole Leaving Certificate. Therefore, this regulation causes many problems. However, the Department of Education has left itself an escape route. Circular M13/84 from the department which refers to the above regulation finishes with: "in the implementation of this rule due cognisance will be taken of the particular difficulties of individual schools". Thus, circumstances might arise where the rule would not be implemented. These circumstances have not been defined and the question arises as to whether they will be educational or political in nature. Therefore, because of the inherent difficulties these courses might not really inspire the change which was the reason for their introduction. So, at senior level the process of science education is not necessarily improved by recent changes.

In the course of this paper I have followed the developments and indicated some of the problems in science education in our schools, and I hope I have illustrated that in some aspects there has been a degeneration in the quality of science education in our schools over the past 60 years.

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THE CURRICULAR IMPACT OF "COMPUTERS IN EDUCATION"

John F. Kelly

The purpose of this paper is to analyse the effects of the micro-computer on the school curriculum now, to evaluate these, and to indicate trends which appear to have significance for the future. Computer-talk in general is noted for its jargon and educational computing has made its own contribution to an already long list of acronyms. In the interests of clarity therefore, I propose to define my terms as I proceed. In some cases it may be objected that I am legislating rather than defining. I shall risk this objection and merely reply that where I legislate I do so purely in regard to the way I intend to use certain terms within this paper. If others have used them in the past, or wish to use them in the future to mean something else, then they are quite free to do so.

Let us start with a couple of key terms used already in the title of this paper. The term "computers in education" is used in a number of different ways. First of all it is used to mean teaching about computers in schools. I shall refer to this area as Computer Studies. Secondly it is used to refer to the use of the computer as an educational tool or resource, to aid or sometimes even to replace the teacher in the classroom. Finally it is used to refer to the computer as an administrative aid in education. I shall use the term educational computing to refer jointly to the last two areas i.e., the computer used as a resource, whether for pedagogical purposes or administrative purposes, to distinguish this activity from the area already designated as computer studies. When I speak of the curricular impact of "Computers in education" I have in mind the effects of computer technology on both the content taught and the manner in which this content is taught and experienced in schools. In examining this impact, two questions suggest themselves. First of all, what effect if any have computers had on education to date? Secondly it could be asked if the net effect of all this, assuming there has been some effect, has been a beneficial one or otherwise for the enterprise of education. Depending on how one answers the last question, the issue must then be decided as to whether we should continue to allow present trends in relation to computers in education to continue or whether a drastic re-orientation is required, entailing perhaps, in the extreme case, abandoning the enterprise completely as just one further bandwagon which has been imposed on the school by hostile commercial interests from outside, and is now just about to lose its 'fad' value. According to this perception of things, we shall presently abandon our flirtation with the world of micro-chip and return to the real business of education (whatever this may be deemed to be). I shall now attempt to deal with these questions, in the order in which I have set them out and to conclude by pointing towards the evidence I see as indicating the direction in which our future efforts should lie.

There is very little doubt that the micro-chip revolution has had a substantial influence on the content of the school curriculum in these islands. As evidence of this we need only look at projects such as Microelectronics Education Programme (MEP) in Britain.[1] Evidence concerning the Republic of Ireland is harder to come by than in the case of Britain but one is entitled to assume that the number of micro-computers installed in schools provides some rough measure of the extent to which Computer Studies has penetrated the curriculum. In 1981 it was estimated that there were at least 600 micros in post-primary schools in the Republic.[2] According to the Department of Education 200 further systems will have been installed by the end of 1984.

When we ask what goes on under the heading of Computer Studies, the answer is not quite clear. The MEP has produced a number of circuit boards with accompanying explanatory material and worksheets.[3] Presumably this constitutes the curriculum. In Ireland, Computer Studies exists as an optional module within the Leaving Certificate Mathematics syllabus. Those who reach a "satisfactory standard" get a special certificate in Computer Studies from the Department of Education. As the guidelines provided in "Rialacha agus Clar" are very vague and monitoring by the inspectorate extremely limited it appears reasonable to conclude that there must be considerable variation throughout the country as to what is taught, by what methods and to whom. In the school year 1984/85, the Department has also authorised the teaching of Computer Studies within the Junior Cycle, subject to the same guidelines (such as they are) and the same timetabling constraints (Computer Studies must be timetabled within the Mathematics time allocation) as pertains in the Senior Cycle. Meanwhile, the syllabus committee continues its lengthy deliberations and the situation on the ground continues to provide disgruntlement for almost all teachers involved with the subject (or module or whatever the correct designation may be).

In surveying the current arrangements relating to Computer Studies, it would be a gross distortion of both history and justice to pass on without reference to the role played by the Computer Education Society, Ireland (C.E.S.I.) down through the years. This organisation was founded in 1973 as a voluntary association of people interested in promoting computer education. Since then it has provided (a) a journal, C.E.S.I. Newsletter which is published three or four times a year, (b) training courses for teachers in computer education, sometimes under its own auspices and sometimes with the backing of the Department of Education, (c) a channel of communication between the Department and the people working at the chalkface (or perhaps more appropriately in this context, at the interface) and (d) a Software library to make available programs developed by Irish teachers and students. It has also developed international contacts through its participation in conferences and seminars. In this respect it might be mentioned that the Honorary President of the Association is Professor A.C. Bajpai, University of Technology, Loughborough, England. Professor Bajpai, who gave freely of his expertise in Ireland in the early years of C.E.S.I. has been aptly described as "a charismatic figure".[4] He holds a chair in Mathematical Education at Loughborough where he has established the Centre for Advancement of Mathematics in Education and Technology, (CAMET). This has an Irish branch, CAMET Ireland, based in the Department of Mathematics at Thomond College, Limerick. In an interview given to the magazine, Irish Computer, last year, he claimed to be optimistic about the future of computer education in this country, despite the inaction of the Department of Education. He based his optimism on the prodigious level of activity evident among the 'grassroots' typified in particular by the work being done by C.E.S.I.

So what conclusions can we draw regarding the future status of Computer Studies in the Irish post-primary curriculum. The Department of Education would seem unlikely to take any initiative in the immediate future to change the status quo, as they can now argue, with some credibility, that the whole post-primary curriculum is presently sub-judice, in any case, pending the outcome of the deliberations of the Curriculum and Examinations Board. Are there any straws in the wind as to how that body might be likely to view the matter?

At the time of writing the only evidence to hand is the 'Consultative Document' issued by the Board.[5] This deals with the Junior Cycle only and Computer Studies does not appear here as a separate subject. Indeed it would be fair to say that the Document does not uce a subject framework but deals instead with eight categories or areas of curricular activity. Each area is subdivided into core courses and additional courses. Computer studies is mentioned under one guise or another in no less than three of those areas. It constitutes an additional course in Mathematics and so, presumably, is optional in this area. The reasoning here is somewhat hard to follow as I personally find it very difficult to conceive of a Mathematics course forming part of a person's general education which does not make reference to modern aids to calculation, including the electronic calculator and the computer.

The second reference occurs within the area of Communication, Language and Literature. Here it forms part of the core and is designated as Computer Literacy. This seems to recognize an important and, in the present scheme of things, very much neglected aspect of Computer Studies, namely the emerging area of information technology. It is in this area more than anywhere else that we run the risk of creating a 'new illiterate'. Thus one can only feel grateful that this critical area has been given due recognition.

The third area in which it is incorporated is the area referred to as Science and the New Technologies.

Presumably, the 'New Technologies' which form part of the core, would incorporate micro-electronics. If they do not, it is hard to understand the force of the word 'new' in this context. If they do, do we really need a further option called Computer Science as a possible additional area of study? It seems to me, that for the purposes of general education all that a pupil needs to know about computer science at this level would come under the heading of microelectronics, which as I have already argued must be assumed to form the central ingredient in anything bearing the title 'New Technology'. So to summarize here, I would say that the Consultative Document got it almost completely right in relation to Computer Studies at the Junior level. Where I would differ with the Document would be, in including an element of Computer Studies within the core, in the mathematical area, and in omitting any additional courses in Computer Science from the Science and New Technologies area.

I would further support this last point by stating quite boldly that the place for Computer Science is at the Senior Level. The reason for this is very simple. Basic to any understanding of Computer Science in the strict sense of the term, and I see no point in using it in any other, is a relatively sophisticated grasp of logical processes. I am not at all convinced that fourteen year olds and fifteen year olds possess the degree of logical sophistication required for such a study. In the Senior Cycle it would of course be an optional, and indeed I would suggest a minority subject, just as physics and chemistry are at the moment optional subjects. To put it very bluntly I would see it being pursued only by those who wished to follow computer-related careers. One's general education in computers (that which is required by everyman) might well end with the completion of the Junior-cycle. No doubt, one might still find mention of it in areas such as media studies or secretarial studies or even social studies but certainly not in the form of Computer Science. Any talk accordingly of half-subjects or modules at this level appears to me to be misguided and dodging the issue. We either regard the formation of computer scientists as important or we do not. If we do not, let us say so quite clearly. If we do then we must take the same steps towards cultivating them as we do in the case of physicists, chemists or historians. I myself happen to belong to the school of thought which believes (perhaps mistakenly) that it is very important for us as a nation, faced at last with the task of earning a living in the open market, to produce at least as many computer scientists as we do historians. Consequently, I must then try to be logically consistent and say that if I believe this is an objective worth pursuing it entails that I must take whatever means are necessary to attain it. The difficulty of finding time in an already overcrowded curriculum can I believe be met very simply. Make the curriculum less crowded. The case has been made very convincingly in recent years that despite the plethora of subjects which students pursue in the Senior-Cycle, they still fail to obtain a 'balanced educational diet'.[6] It is unbalanced because of a bias towards 'vocational' subjects to the exclusion of almost everything else. The suggested remedy is to reduce the number of 'vocational' subjects from the present six or even seven to two or three. It appears to me that this would solve the problem of overcrowding in a very simple fashion. It is in this reduced 'vocational' sector of the Senior-Cycle curriculum that I would see Computer Science taking its place as an option among other options.

I have gone as far as it is possible to go at this stage in assessing the place of Computer Studies and

Computer Science as part of the curriculum of post-primary schools. Before I leave this particular topic perhaps I should spell out the distinction I see between the two. I use the term Computer Studies to refer to a diffuse area, impinging on a number of different sectors of the curriculum of a general education. Thus it comes under the heading of mathematics, looked at from one particular aspect, Communications when looked at from another and under the heading of Science or even Social Studies when looked at from yet other aspects. Some knowledge of these areas would be required by all who have to cope simply with living in the modern world. Computer Science on the other hand is a specialist pursuit of little interest to the layman but, hardly surprisingly, of great importance to anyone who wishes to pursue a career in a computer-related activity. As such, it is a specialist subject and should be recognized as such in the Senior-Cycle. Whether Computer Studies should be terminated at the end of the Junior Cycle or whether it should be pursued in greater depth as part of one's general education in Senior-Cycle is a question on which I have a completely open mind at the moment.

I shall now turn to the area of Educational Computing which, as I said earlier, covers the use of computers in both teaching and administration. Let us take the easier one first. It hardly needs stating computers are being used increasingly to facilitate administrative tasks in the world of industry. Their potential here relates to their ability to assess, store and process large amounts of information very rapidly. Without falling into the trap of assuming that the administration of a school is no different from the administration of a factory, from a purely mathematical point of view all administrative problems exhibit certain common features, e.g. replacement stock-control, queues, allocation of resources, networks, etc. The branch of mathematics which deals with such problems is known as Operations Research. Now Operations Research requires a sophisticated understanding of pure mathematics, particularly in the area of probability theory, in order to apply it intelligently. Many otherwise very able administrators have neither the time nor the taste to pursue such arcane topics. Happily the answer to their problem is that the expertise of the specialist in Operations Research can be made available to the mathematically less sophisticated in the form of a computer program, or package of programs. Very often these have to be carefully tailored to suit particular types of application. The needs for example of the building contractor differ considerably from the needs of the doctor. The practice here is very simple. Someone will write the package if and when it becomes worthwhile to do so from a financial point of view. Schools have not been considered a lucrative market to date as the technology required to support such packages would have been considered, until recently, much too costly. Now with a micro (at least) in every school and the thoughts of administrators' turning to what they can do with it, as distinct from what the kids can do with it, it would seem to be only a matter of time before packages designed specifically for schools begin to appear. As this seems to be an area which is non-controversial, at least I have never met anyone who objected to being relieved of a certain amount of drudgery, I think we can safely leave the question of computers in educational administration with the comment that the uses will proliferate as the software becomes available. But what effects, you may ask, is this likely to have on the curriculum. After all the title of the paper does make explicit reference to the 'curricular impact' of the computer. Here, I suggest, the impact will be indirect. One human constraint on curricular options in many school, I have no doubt, is the number of administrative headaches that would follow any attempt to cater for 'minorities' and individual idiosyncrasies. With the machine taking on more of the drudgery such constraints could at least be diminished if not completely eliminated, hence making for more adventuresome timetables, allowing in turn greater curriculum flexibility. Whether such possibilities turn out to be realities, or just Utopias, only time will tell.

I turn now to a much more controversial area, namely the use of the computer as a teaching aid or in some very extreme versions of the future as a replacement for the teacher. Let us begin by reviewing the state of the art in this area, as it has developed historically. In the 1950s and 1960s the idea of an 'educational technology' was given considerable prominence by an American psychologist called B. F. Skinner. Skinner's researches were based on the behaviour of animals (notably rats and pigeons). It is fair to point out that this mode of research had a long tradition behind it, going back to the work of Thorndike in the 1890s, with cats and other animals, using 'puzzle-boxes' one of which is reputed to have been a scale model of Hampton Court maze. So Skinner's notion of 'teaching machines' derived from his study of animal behaviour was not really novel, as it had been anticipated in the 1920s by a man called Pressey. Pressey's machines, however, did not enjoy a great deal of popularity. Skinner's did. Programmed learning became the new vogue in American education. The dream was conceived of the machine ultimately taking over completely from the human teacher. This dream took on greater credibility as interest began to grow in applying the computer to the learning process. This interest developed rapidly in America in the 1960s and the terms

Computer Assisted Learning (CAL) and Computer Managed Learning (CML) were coined. The distinction between them might be made in a simple manner by saying that whereas CAL operates in a direct tutorial role, CML takes over the record keeping chores associated with teaching/learning in order to leave the teacher free to do what presumably he does best i.e. teach. Having made this distinction, one must hasten to add that it has become blurred recently and the term Computer Based Learning (CBL) has crept in, which is applied to both areas. For myself, I prefer the term CBL, reserving the term CAL for tutorial type programs which work on a Programmed Learning basis. I believe that the term CAL has become firmly associated with this particular style of teaching, whether we like it or not. Without entering into the argument concerning the merits or demerits of Programmed Learning, I believe that the computer has a wider contribution to make to education than that of just another "teaching machine" and that in order to allow it to make its full impact we must break away from a terminology which is at best limiting. This view is shared by Richard Hooper, director of the NDPCAL, in England, although he seems to think that one can change the image while retaining the term.[7]

What then are these new possibilities that are emerging which might merit our attention in the years to come? For what it is worth, I would consider the work and approach of Seymour Papert at Massachusetts Institute of Technology to be of considerable significance.[8] One may debate the educational significance of LOGO but Papert has made it very clear that LOGO is as much a philosophy of education as it is a programming language. The central insight of LOGO as opposed to the CAL approach lies in getting 'the child to program the computer rather than getting the computer to program the child'. If, as

Dwayne Huebner would claim, the business of the curriculum specialist is to design a just educational environment,[9] then the real potential of the computer must surely be the opportunity which it provides through its information processing capabilities and its unique facility to simulate conditions which could never otherwise be created in the classroom, to extend and enrich this environment beyond anything that has been even dreamed of heretofore. It is this I believe which provides the key to any understanding for the future of the curricular impact of computers in education.

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TEAGASC NA GAEILGE SAN IARBUNSCOIL

Mairtín Ó Fathaigh

Gné shuaithinseach de chóras oideachais na hEireann o 1922 ar aghaidh is ea an bheím a leagtar ar theagasc na Gaeilge. Cuirtear tabhacht agus seasamh oifigiúl na Gaeilge in iúl sa Bhunreacht agus creidtear coitianta go bhfuil gnéithe i ndúchas na Gaeilge atá riachtanach d'ár slainte mar phobal. Téann teanga i bhfeidhm ar chultúr comhluadair agus téann an cultúr comhluadair i bhfeidhm ar theanga sa tslí go bhfuil soisialu pobail i gceist mar aon le sóisialú an tsaoránaigh féin.[1] Dar ndoígh tá cumais labhartha agus scriofa ar na gléasanna cumarsaíde is tabhachtaí agus is cumhachtaí atá ag an duine agus is cumas agus treíth fíor-dhaonna atá i gceist nuair a thráchtar ar shaorchumarsaíd cruthaitheach.

Tá fadhbanna spreagaireachta agus gnéithe cultúrtha ar leith ag baint le teagasc an dara teanga agus ní mór iad a thógaint san áireamh nuair a bhíonn spriocanna foghlama, cur chuigí agus measúnú a ullmhú. O thaithí agus taighde atá déanta i gcórais eile bíonn an dara teanga uaireanta ina gléas cumarsáide amháin. Is fuí machnamh a dhéanamh ar an bpointe seo maidir le teagasc agus foghlaim na Gaeilge. Ghlacfadh roinnt daoine ach go háirithe leis an tuairim nach ionann ar fad foghlaim na Maitimatice, mar shampla, foghlaim na Gaeilge inár scoileanna. Dar leis an seasamh seo má theastaíonn uainn ár saoránaigh a bheith saíte go hiomlán inár gcultúr comhluadair áirithe ní miste dóith an teanga a ghlacadh chucu féin ní mar úirlis cumarsáide amháin ach mar ghléas a thugann deis agus aga dóibh nósanna agus cultúr iomlán a g-comhluadair a thuiscint agus a ghlacadh mar chuid dá saol. Sin an *raison d'etre* a neartaigh na hiarrachtai a deineadh o bhunu an stáit seo i 1922 chun an Ghaeilge a chur chun cinn sa chóras oideachais. Tá an rationale nó an bonn spreagaireachta seo an chosúil leis an "intergrative motivation" a d'aithin Gardner et al. I 1980 bhí an méid seo le rá ag an tOllamh Gardner maidir le foghlaim an dara teanga.

> The learning of a second langauge in the school situation is often viewed as an educational phenomenon and as a curriculum topic in much the same light as any other school subject. The thesis proposed here is that such a perspective is wrong and that the second language, unlike virtually any other curriculum subject must be viewed as a distinct social psychological phenomenon... The rationale underlying this view is that most other school subjects involve learning elements of the student's own cultural heritage. Whereas in the acquisition of a second language the student is faced with the task of not simply learning new information which is part of his own culture but rather of acquiring symbolic elements of a different ethnolinguistic community. 2

Cuireann an dearcadh seo in iúl dúinn go bhfuil nasc fíor-thábhachtach idir dearcaidh an phobail i gcoitinne, forbart mhothúchánach an fhoghlaimeora agus teagasc na Gaeilge, go háirithe san iarbhunscoil. B'fhéidir gurb é an easpa ceangail idir fhoghlaim na Gaeilge ar scoil agus a húsáid taobh amuigh den scoil is mó a sháraoinn an teagasc san iarbhunscoil. Tugann an taighde a deineadh le deich mbliain anuas ag An Coiste Um Thaighde ar Dhearcaidh an Phobail i dtaobh na Gaeilge agus ag Institiúid Teangeolaíochta Éireann le fios go dtugann tromlach an phobail tacaíocht do stadas na Gaeilge sa chóras oideachais. Tá tabhacht an-mhór i suíle na ndaoine ag an nGaeilge mar chomartha eitneach ach léirítear leis go bhfuiltear go mór in amhras faoina hoiriúint do shaol nua aimseartha na linne seo. Ina theannta san léiríonn na súirbhéanna oibiachtúla seo go raibh an-mhíshástacht i gceist maidir leis na béimeanna a leagadh sna cúrsaí Gaeilge i scoileanns, gí nár miste a rá go raibh laighdiú le feiscint sa mhíshástacht seo idir 1973 agus 1983.[3] San tuarascáil a d'fhoilsigh Institiúid Teangeolaíochta Éireann i 1984 tá a méid seo le rá inter alia maidir le dearcadh an phobail idir 1973 agus 1983:

> The similarities are particularly noticeable in the cases of language use and ability. Very few differences are apparent between the 1973 and 1983 samples on matters pertaining to the use of Irish in the home, at work and in social life. Irish continues to be used, on a regular and frequent basis by less than 10 per cent of the population. Only in the case of passive use, i.e., watching Irish language programmes on television was there a significant increase... Support for Irish when it is expressed in terms of ethnic identity, cultural values and the Gaeltacht continues to be very high. Belief in the viability and utility of Irish continue to be generally pessimistic.

Má ghlactar leis gurab iad an toilteanacht agus fonn chun foghlama na gnéithe is tabhachtaí a bhaineann le héifeacht teagasc an dara teanga tá impleachtaí an-mhór ag na tuairimí a nochtadh thuas do theagasc na Gaeilge san iarbhunscoil. Séard atá i gceist anseo ná toilteanacht an mhúinteora, toilteanacht an fhoghlaimeora agus toilteanacht an phobail i gcoitinne. Tá tabhacht ar leith ag baint le teagasc na Gaeilge i bpolasaí an staít agus ní féidir na buncheisteanna a bhaineann le Gaeilge a fheiscint i bhfolús ach caithfear an comhthéasc leathan soisíalta a scrúdú. Mar shampla ceann de na hathraithe ba mhó a tharla le fiche bliain anuas ná an fás an-thapaidh agus an-mhór a tháinig ar líon na ndaltaí sna hiar bhunscoileanna de bharr méadú ar an daonra agus an saor oideachais. Ní forbairt agus athrú in uimhreacha amháin atá i gceist anseo ach leathnú i réimsí éirime agus spéise na ndaltaí agus i ndearcadh an phobail i gcoitinne maidir le h-oideachas. Tá obair chasta an mhúinteora Gaeilge níos déine anois de dheasca na gcláracha mí-oiriúnacha, an easpa acmhainní tacaíochta teagaisc agus an tslí an gceanglaitear foghlaim leis an seomra ranga amháin. Tá comharthaí an *malaise* seo le sonnrú i ngach leibhéal den chóras oideachais. Léiríonn staitisticí na roinne oideachais féin athrú an-bhunúsach i staid na Gaeilge san iar-bhunscoil le fiche bliain anuas, go háirithe maidir le líon na ndaltaí nach n-éiríonn leo grád D a bhaint amach sna scruduithe, an tardú atá tar éis teacht ar uimhir na n-iarrathoírí nach dtógann Gaeilge sna scruduithe; agus an titim i líon na macleínn a thógann Ard Chúrsa Gaeilge san Ardteist.

Ina theannta san léiríonn na torthaí ón gCoiste taighde a luaigh mé ó chianaibh míshástacht maidir leis na béimeanna a leagadh sna cúrsaí scoile agus nár éirigh le cuid mhaith scoláirí aon chumas cumarsáide a thabhairt leo. Chreid 78% den na freagróiri nár fhoghlaim daltaí go leor Gaeilge chun í a labhairt tar éis dóibh an scoil d'fhágaint agus bhain an mí-shástacht le gach aois ghrupa ó lucht fágála scoile go dtí freagróirí a bhí ins na seachtdóidí.[5]

Maidir le foghlaim teanga dhe 'sé an cumas labhartha mór riachtanas an dalta, riachtanas, a deir saineolaithe áirithe atá níos tabhachtaí ná eolas i dtaobh na teanga. Tuigeann múinteoirí áirithe a chleachtaigh an córas ABC ó na triocaidí ar aghaidh go raibh an riachtanas seo mar sprioc fíor thabhachtach i gcónaí. Tugadh an modh closamhairc Buntús Cainte isteach in ionad an córas ABC. Mar is eol dúinn sna cúrsaí bunaithe ar an mBuntús bíonn cúig cheím ins gach ceacht. Tá na céimeanna tosaigh dírithe ar dheilíní, cleachtadh agus glan mheabhrú agus tá na céimeanna deiridh dírithe ar shaor chomhrá.[6] Ionas go mbeadh toradh fónta agus rath ar mhodh an "Bhuntiús" tá sé riachtanach go mbeifí ag treisiú ar na céimeanna deiridh, na céimeanna atá dírithe ar an saor chomhrá a dhéanfadh na daltaí féin. Léiríonn an taighde, afách, nach mar sin a tharlaíonn agus is é fírinne an scéil gur fíor bheagán den chómhrá a dhéantar. Ní nach ionad ansan go samhlaitear go minic gur ceacht fíor mheicniúl righin an gnáthcheacht Gaeilge i roinnt mhaith iarbhunscoileanna.

Sa chomhthéasc seo leis is fuí srachfhéachaint a thabhairt ar phíosa taighde a thugann an-léargas dúinn ar na nósanna imeachta a chleachtaitear i seomraí ranga san dara leibhéal. Deireann an Dr. Seán Ó hEigeartaigh go mbíonn riail na dtrí gceathrúna i bhfeidhm i ranganna daoneolais agus litríochta in Éirinn maidir le roinnt an dioscúrsa idir an múinteoir agus na daltaí. Ar an méan is é an múinteoir a bhíonn ag labhairt ar feadh 76% d'am an ranga agus is ag léachtóireacht a bhíonn sé ar feadh 44% den am sin.[7] Faoin am go mbíonn deireadh ráite ag an múinteoir ní bhíonn ach thart ar 10 nóiméad as rang 40 nóiméad le roinnt ar na daltaí. Má bhíonn 30 dalta sa rang fágann san go 20 soicind an duine ag na daltaí chun caint a dhéanamh. Sé tuairim Uí Éigeartaigh ach go háirithe "ní hionadh mar sin a gcumas cumarsáide agus dtuiscint don chumarsáid a bheith easnamhach neamhfhorbartha".[8] Cuirtear an bhéim go deo leis ar na scileanna tánaisteacha mar an léamh, míníu agus meabhrú. I scoileanna eile tá fianaise ann a léiríonn gurb é an Béarla an teanga theagaisc agus chaidrimh sna ranganna Gaeilge. Anuas ar seo go léir tá díscíu an mhór déanta ar na scoileanna A agus B ar fud na tíre. Níl ach thart ar fíche díobh anois ann i gcomparáid le 231 sa scoil bhliain 1958-59.

De réir a chéile tá na frámaí tacaíochta a neartaigh agus a shaibhrigh teagasc na Gaeilge san iarbhunscoil bainte nó tite anuas.

In alt an spéisiúil i *dTeagasc na Gaeilge* cuireann Liam MacMathúna roinnt ceisteanna an-bhunúsacha maidir le foghlaim dara teangacha sna scoileanna. Tá tabhacht ar leith ag roinnt de na ceisteanna seo do theagasc na Gaeilge.

(a) An bhfuiltear ag súil go gcomhshamhlófar na foghlaimeoirí le lucht labhartha na sprioc theanga? Ar cheart go gceapfaí ar chaint na bhfoghlaimeoirí gur cainteoiri dúchais Gaeilge iad?

(b) An bhfuiltear ag súil go mbeidh cumarsáid dhíreach idir na foghlaimeoirí agus lucht labhartha na sprioch theanga?

(c) Nó an bhfuiltear ag súil go sroichfidh na foghlaimeoirí leibhéal cumais neamhiomlán, easnamhach éigin, nach mbeadh chomh maith le ceachtar den chéad dá aidhm, gur leor saghas "idir theanga" nó interlanguage?

(d) Nó an le saol na scoile go príomha a bhaineann foghlaim na Gaeilge agus an bhfuil an ghníomhíocht seo neamhspléach ar úsáid lasmuigh den scoil?[9]

Caithfear díriú go luath ar na freagraí do na ceisteanna sin.

Caithfear a admhaíl gur ró mhinic a bhíonn ábhar agus dua na múinteoireachta dirithe ar scrúduithe in ionad a bheith dírithe ar riachtanais an ghnáthshaoil lasmuigh den scoil. I litríocht an oideachais tá an-chuntas ar an "curaclaim ceilte" nó on Hidden Curriculum. Úsáidtear an coincheap seo chun an teannas a tharlaíonn idir aidhmeanna oifigúla agus nithe a thiteann amach i ngáth-shaol na scoile a mhíniú. I gcás na Gaeilge de tá a léithéid de teannas le feiscint idir na haidhmeanna a luaitear le Gaeilge i Rialacha agus Clár do Leith Meanscoileanna agus an bhéim a chuirtear ar scríobh seachas labhairt ins an scruduithe. Is ráitis an ghinearálta i leith teagasc na Gaeilge atá i gceist nuair a úsáidtear nathanna ar nós "a chur ar a gcumas do dhaltaí an teanga a thabhairt leo go cruinn agus go líofa, í a labhairt go beacht agus a gcuid smaointe a chur in iúl go soiléir".[10] Níl aon leibhéal chumais ceangailte leo seo agus ní thugtar treoir maidir leis an teolas agus na scileanna ba cheart a bheith bailithe chuige féin ag dalta ag pointí éagsúla sa chóras agus conas mara aithneofaí agus a thástálfaí an teolas agus na scileanna sin. I gcórais eile tá spriocanna céimhnithe do chúrsaí a chuirtear in oiriúint d'aois ghrupú éagsúla agus do leibhéil chumais difriúla. I láthair ha huaire maidir le Gaeilge táthar ag gabhaíl do na cursaí ceannann céanna ó cheann ceann an stáit agus ní thugtar aon aird ar dhifriochtaí maidir le suíomh Réigiúnach, aicme shóisialta, fadhbanna spreagaireachta, ná ciúnsí eacnamaíochta. Mar a deireann Tuarascaíl o mheitheal oibre i mBord na Gaeilge "Measaimid áfach gurb é an laincis is mó ar mhúineadh agus foghlaim na Gaeilge ins an iarbhunscoil ná an doiléire maidir le haidhmeanna na gcúrsaí agus an bhéim a leagtar ar scríobh na teanga seachas a labhairt". Ta gá le cúrsaí agus siollabais éagsúla a sheasfadh mar aonaid leanúnacha do dhaltaí idir 4 bhliain agus 15 bhliain d'aois agus ní mór díriú i dthosach báire ar na scileanna príomha-tiuscint agus labhairt.

Tá formhór na hoibre i mórán ranganna Gaeilge san iarbhunscoil dírithe ar an gcuimhne chogneolaíoch amháin. Tá mórán fiannaise ó chórais eile a léiríonn a thabhachtaí is tá mothúcháin, dearcadh an dalta agus atmosféar an ranga i múineadh an dara teanga. Tráchtann Stephen Krashen ar an scagaire mothúchánach nó an "Affective Filter" i múineadh an dara teanga agus ón taighde atá déanta aige creideann sé go bhfuil dea-thoil chun foghlama agus mothúchaín an fhoghlaimeora níos tabhachtaí b'fhéidir ná claonadh dúchais.[12] I gcás na Gaeilge de tá tabhacht ar leith ag baint le féin-coincheap an dalta agus a dhearcadh maidir leis na tascanna foghlama atá idir láimhe. Ins an bpáipéar a léigh an tOllama Van Ek. do shammar ag Bord na Gaeilge i 1981 thug sé cuntas an-iomlán ar an bpróiséas pleanála a ghabhann le beartú cúrsaí foghlama teanga agus léirigh sé go bhfuil béim ar leithligh dá chur i dtíortha eile ar riachtanais an fhoghlaimeora, ar an gcur-chuige cumarsaídeach agus ar an dlúth bhaint atá idir foghlaim agus forbairt iomlán an duine.[13] Dar ndóigh, tá an chuid oibre ar siúl i láthair na huaire ag dreamanna éagsúla chun shiollabus cumarsáideach nGaeilge a sholáthair d'fhoghlaimeoirí idir óg agus aosta.

Deirtear go minic gur dearcadh nua aoiseach foghlama teanga atá sa chur chuige seo, atá tagtha chun cinn ó Chomhairle na hEorpa ós na seachtoídí ar aghaidh. Siad na sainbréithe is suntasaí a bhaineann leis an gcur chuige seo ná go dtugtar tús éite do riachtannais na bhfoghlaimeoirí, go mbaintear úsáid as an teanga chun tascanna cumarsaíde a chur i gcrích, go leagtar amach aidhmeanna réadúla agus cuspoírí inshriocte agus go scaoiltear an múinteoir saor chun a rogha mhodha a úsáid. Ina theannta san deintear an-chomhthathú idir na scileanna éagsúla, a bhaineann le ginchumas agus gabhchumas na bhfoghlaimeoirí. Bíonn éisteacht, tuiscint, labhairt, léamh agus scríobh i gceist mar eilimintí den tasc. Ní chleachtadh foirmeálta, struchtúrtha atá i gceist ach baintear úsáid as an teanga chun díriú ar an gcumarsáid.

Cuirtear béim ar inníulacht teanga agus cainte a thabhairt chun cinn agus mar atá leírithe ó thaighde atá déanta anseo agus i gcórais eile fásann féin-mheas na bhfoghlaimeoirí toisc gur féidir leo na scileanna cumarsaíde agus an teanga a úsáid i gcomhtheascanna éagsúla. Tá déanamh timpriallach ar an gcúrsa seo agus méadáitear ar na bunscileanna de réir a chéile. Sa tslí seo spreagtar daltaí chun leanúint ar aghaidh le foghlaim na teanga.

N'fheadar mé an bhfuil go leor macnaimh déanta againn mar gheall ar na hathraithe an-bhunúsacha a tharlóidh i ról an mhúinteora san iarbhunscoil nuair a chuirfear an cur chuige seo i bhfeidhm. Tá go leor, leor fianaise ann a léiríonn gur tabhachtaí go mór na modhanna agus na stratéisí teagaisc a chleachtaitear sa rang ná na leabhair a chuirtear ar fáil. Bun tréith na modeolaíochta atá i gceist anseo, sé sin laímhseáil an ábhair i láthair an ranga. Mar a deir Keith Johnson sa leabhair úd *Communicative Syllabus Design and Methodology* "Whether or not a course is communicative will depend as much on its methodoogy as on the pedigree of its syllabus".[14] In eagrán den *European Journal of Teacher Education* deineann beirt modeolaithe on Íseal Tír tagairt d'impleachtaí an chur chuige seo d'obhair an mhúinteóra ranga.[15] Bíonn athraithe i gceist maidir le ról an oide, eagar ranga agus na hachmhainní foghlama a úsáidtear. Bíonn obair bheirte, obair ghrupa, obair aonair i gceist agus úsáidtear gníomhaíocht chruthaíoch, cleachtaí teípe, rólaisteaireacht, mím, cluichí cumarsaíde agus malartú eolais. Deintear idir dhealú idir cumas foghlama agus cumas sealbhaithe an dara teanga agus leagtar an-bheím ar ocaídí, tasanna agus timpeallachtaí nádúrtha réalaíocha chun inmheanú a thabhairt chun críche.

Sa chur chuige seo is bainisteoir nó treoirí é an múinteoir agus níl a ról chomh húdarásach ná chomh díreach agus a bheadh sé ag plé le druileaíl éigin ar ghramadach. Caithfidh an múinteoir a bheith cleachtaithe ar gach saghas áiseanna foghlama agus a bheith sásta glacadh le hearraídí na bhfoghlaimeoirí mar chuid nádúrtha den próiséas foghlama. Tá impleachtaí ag gach a bhfuil raíte do réamh-ullumhúchán oidí agus do chúrsai inseirbhíse. Pé athraithe a chuirfear i bhfeidhm tá sé rí-tabhachtach go mbeadh na hoidí sna scoileanna bágúil agus sásta leo. Mar a deir Howard Altman

> Innovations in second language classrooms have a strong likelihood of success only where
>
> a. teachers are philosophically supportive of the innovation;
> b. teachers are trained in advance in the procedures required by the innovation;
> c. materials are available, clear and usable;
> d. there is sufficient pedagogical fit for the innovation in the course. 16

I ndeireadh thiar is é oilteacht ghairmiúl agus pearsontacht an oide is mó a théann i bhfeidhm ar dhaltaí agus mar a dúirt Uachtaráin an Chumainn seo An Bráthair Ó Súilleabháin "i gcroí lár an teagaisc tá rúndiamhair agus cosúil le gach rundiamhair eile farrann sé ina rún diamhair a éaláionn ó bhriathra daoine".[17]

Is cúis dóchais áirithe dúinn an fhorbairt agus an borradh atá tagtha le déanaí ar bhunoideachas trí Ghaeilge sa Ghaeltacht agus is neamhspleach ar an rialtas a tharla sé go minic. B'fhéidir go rathathas roimhe seo i dtuilleamaí an Chórais Oideachais ró mhór chun úsáid na Gaeilge a leathnú agus nach raibh dothain tacaíochta ná polasaí cinnte ag Institiuidí eile an Stáit i leith na Gaeilge. Mar a dúirt Osborn Bergin i Studies beagnach

seasca bliain ó shin "Today the people leave the problem of the Irish language to the government, the government leaves it to the department of education, the department leaves it to the teachers and the teachers leave it to the school children".[18]

Pé scéal é, tá am na praínne linn maidir le teagasc na Gaeilge san iarbhunscoil. Is fíor gur socraithe agus polasaithe polaitiúla atá i gceist ar deireadh thiar, ach caithfear meoin agus dearcaidh na nóidí a chloisteáil go soiléir. Má leantar ar aghaidh mar a tá, tá baol ann go mbeidh stadas na saoránaíochta ag an nGaeilge i mórán iarbhunscoileanna,[19] agus teanga an mhionlaigh ar fad a bheidh i gceist. Fáiltimís mar sin, roimh athraithe agus cur chuigí a chuirfidh ar ár gcumas stadas na Gaeilge a neartú agus a thabharfaidh le tuiscint do dhaltaí óga gur féidir an Ghaeilge d'fhoghlaim agus gur féidir í a úsáid i dtimpeallachtaí agus í gcomhtheacsanna éagsúla seachas an seomra ranga amháin.

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TRY-OUT OF AN INSTRUCTIONAL MANAGEMENT SYSTEM IN PRIMARY SCHOOL MATHEMATICS

John S. Close

The use of behavioural objectives in the design of instructional systems and programmes has been advocated by many educators (e.g. Madaus, 1967; Mager, 1968; Tyler, 1968). Much has been written concerning the efficacy of objective-based instructional programmes (e.g. Melton, 1978) and, at this stage their usefulness in many educational contexts would appear to be well established. A fundamental concept underlying many programmes using behavioural objectives is the notion of mastery learning, which suggests that the vast majority of students can master the objectives of a programme given the appropriate amount and kind of instruction (Block, 1971). Criterion referenced tests are often used in such systems.

A number of systems for organizing and managing instructional programmes using behavioural objectives and criterion referenced test information have been developed for subjects in general (Briggs, 1977), and for mathematics in particular (Crosswhite and Reys, 1977). Many of these approaches are described as "self-paced" (Schoen, 1976), i.e. the way in which each student proceeds through a sequence of objectives (or learning experiences) is largely determined by the rate at which he/she masters the constituent objectives of the sequence rather than by other considerations such as group performance on individual objectives or clusters of objectives. In general, it can be said that all these programmes or systems for managing instruction attempt to provide a means by which control, in a coordinated and systematic manner, can be exerted (by teacher and/or student) on aspects of instruction which are considered to have a significant influence on the learning process. (Golladay et al., 1975, have developed a paradigm for describing and differentiating the way in which the variables are controlled in such programmes and systems.)

This pilot study represents an attempt to test an objective-based instructional management system in mathematics which is similar in its characteristics to those systems mentioned above but modified in a limited way to fit into the Irish primary school context. The objectives of the pilot study were as follows:

1 to try out a precisely described instructional management system in mathematics at grades two, four and six in an Irish primary school;

2 to obtain perceptions on the effectiveness and nature of the system from the teachers of the classes participating in the pilot study.

METHOD

The System

The system tried out in this pilot study involved the use of the Drumcondra Criterion-Referenced Mathematics Tests and objectives (1978). The components of the system as used in the study are as follows:

(1) lists of the basic objectives of the curriculum in mathematics for grades two, four and six in primary school.

(2) Criterion referenced tests and record forms for assessing and recording pupil and class mastery of the objectives of the mathematics curriculum for grades two, four and six. (The performance standard required by a pupil in order to be classed as having mastered a particular objective was the number of items of the total number testing the objective, which a pupil must answer correctly, 2 out of 2, 2 out of 3, or 3 out of 4.)

(3) A plan or scheme of instruction for a year set out in eight to twelve instructional units each containing a group of (behavioural) objectives.

Development of the System

The system is still under development and the present pilot study formed part of that development. The stages in the preparation of the initial system were as follows:

(1) following examination of the mathematics section of the Department of Education Curriculum Handbook for Teachers and textbooks currently in use, lists of essential behavioural objectives were drawn up for first and second grades, third and fourth grades, and fifth and sixth grades, making three lists of objectives in all.

(2) The three lists of objectives were reviewed and modified following consultation with panels of teachers, lecturers and school inspectors.

(3) Items (questions) to be used to test pupil mastery of the objectives were written and reviewed and performance standards for mastery of the objectives were set.

(4) The items were compiled and categorised to form three criterion referenced tests with manuals and record forms. The tests were tried out on samples of approximately three to four hundred pupils at each of the three grade levels. Item and test statistics were used to improve the validity of the tests and reliability statistics were also obtained.

(5) The objectives were organized into a number of instructional units to form a year's plan of instruction and the tests of the units in the plans were prepared.

Sample

The system was piloted in grades two, four and six in a boys' national school in the north Dublin area during the 1978/79 school year. Three classes at each grade level participated in the study, each containing 28 to 33 pupils. The total initial sample consisted of 275 pupils and their nine class teachers.

Implementation of the System

The nine teachers were briefed on the system at the beginning of September (1978) and following about two weeks revision of the work of the previous year the pupils were administered a criterion referenced mathematics test (DCRMT) appropriate to their grade level. The tests were administered in two or three testing sessions over a period of a week. The numbers of objectives tested at each grade level, along with the number of questions in the tests, are given in Table 1.

TABLE 1

NUMBERS OF OBJECTIVES AND ITEMS TESTED AT EACH GRADE LEVEL

	Number of Objectives tested	Number of Items in test
(96 pupils) Grade 2	38	92 (2-4 per objective)
(94 pupils) Grade 4	46	122 (2-4 per objective)
(85 pupils) Grade 6	58	156 (2-4 per objective)

The teachers corrected the tests using special scoring stencils and recorded pupil mastery/non-mastery of the objectives tested on a pupil mastery record. This information was used to determine class performance on the objectives and entered in a class mastery record.

The teachers were then provided with a plan for a year's instruction in mathematics. The plan or scheme was divided into 8 to 10 instructional units, each unit containing approximately 4 to 12 of the objectives tested. These plans did not constitute a "ceiling" on the teachers' mathematics instructions but served to ensure that the basic objectives were covered. In fact, most of the teachers provided some instruction in mathematics beyond that aimed at developing pupil mastery of the basic objectives while at the same time following the sequence of the plans.

Towards the end of the school year, when the teachers had completed the programme of instructional units, the pupils in all classes were administered the criterion-referenced test and their performance was entered by the teachers on the pupil mastery record forms and the class mastery records. By comparing the information obtained from this testing with that obtained at the beginning of the year the teachers were enabled to evaluate achievement and make decisions on remedial needs for the remaining week or two of the school year. The implementation of the system was monitored throughout the year. Figure 1 outlines the main stages in the implementation of the instruction management scheme. The teachers participating in the study also completed a questionnaire following completion of the programme, in which they commented on the system and on how they used it.

FIGURE 1

MAIN STAGES IN THE IMPLEMENTATION OF THE SYSTEM

1 REVISION OF PREVIOUS YEAR'S WORK IN MATHEMATICS FOR APPROXIMATELY TWO WEEKS

2 PRE-TEST OF PUPIL PERFORMANCE ON THE BASIC OBJECTIVES OF THE CURRICULUM IN LATE SEPTEMBER

3 SCORING, RECORDING AND ANALYSIS OF PRE-TEST DATA FOR PURPOSES OF PLANNING AND ORGANISING INSTRUCTION

4 PROVISION OF INSTRUCTION ON EACH OF THE INSTRUCTIONAL UNITS LISTED IN THE YEAR'S PLAN FOLLOWED BY A TEST OF EACH UNIT AND REMEDIATION

5 POST-TEST OF PUPIL PERFORMANCE ON THE BASIC OBJECTIVES OF THE CURRICULUM IN LATE MAY

6 SCORING, RECORDING AND ANALYSIS OF POST-TEST DATA FOR PURPOSES OF PLANNING REMEDIAL AND EXTENSION WORK AND FOR EVALUATING INSTRUCTION

RESULTS

The mean proportions of pupils, at each grade level, mastering groups (clusters) of objectives on the pre-test and the post-test, are presented in Tables 2-4. These results provide an indication of the mastery levels of the pupils in the various areas of mathematics at the beginning (September) and end (May) of the period of time covering the operation of the system. The mean proportion mastering a section of the test (i.e. mastering a group of related skills or objectives) is obtained by dividing the mean number of pupils mastering the section by the mean number of pupils responding to the objectives in the section. This figure appears in the fifth column of the results for each grade level. In September, it can be seen that the mean proportion mastering the different sections of the test, generally, fall into the 0.40 - 0.60 range, with, in general, problems solving being the weakest section and graphs and whole number operations being the strongest sections. By May of the following year these figures had all risen very substantially indicating the success of instruction. The mean proportions for May, generally, fall into the range 0.70 - 0.95 with a mean improvement per section of approximately 0.26 (or 26 percentage points).

The results for sixth grade can be tentatively placed in a national perspective by comparing the pre-test and post-test mastery levels with equivalent results obtained using the same test with an approximately national sample of 1167 pupils during the 1974/75 school year (Close, Kellaghan, Madaus and Airasian, 1978; Table 5).[1]

The proportions in this table show that the autumn

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[1] The teachers in the 1974/75 study were provided with lists of objectives and criterion-referenced test results but no system for using the results (cf. Kellaghan, Madaus and Airasian, 1980).

TABLE 2

RESULTS OF SEPT. AND MAY TESTINGS FOR GRADE 2

Section	Number of Objectives	Number of Questions	Mean Number Responding	Mean No. Mastering Objectives	Mean Prop. Mastering	Time of Testing
Operations with whole numbers	8	20	96	60	0.63	Sept.
			88	76	0.86	May
Whole number structure	13	34	93	41	0.44	Sept.
			88	76	0.86	May
Measurement	9	20	94	48	0.51	Sept.
			86	65	0.76	May
Geometry	3	7	93	60	0.65	Sept.
			85	78	0.92	May
Charts and Graphs	1	3	88	51	0.58	Sept.
			83	76	0.92	May
Problem solving	4	8	93	27	0.29	Sept.
			83	60	0.72	May
Total	38	92				

TABLE 3

RESULTS OF SEPT. AND MAY TESTINGS FOR GRADE 4

Section	Number of Objectives	Number of Questions	Mean Number Responding	Mean No. Mastering Objectives	Mean Prop. Mastering	Time of Testing
Operations with whole numbers	10	24	94	42	0.45	Sept.
			89	62	0.70	May
Whole number structure	12	31	94	44	0.47	Sept.
			89	65	0.73	May
Decimals and Fractions	7	21	92	43	0.47	Sept.
			93	68	0.73	May
Measurement	6	16	93	43	0.47	Sept
			92	69	0.75	May
Geometry	4	12	93	47	0.51	Sept.
			92	71	0.77	May
Charts and Graphs	2	8	91	51	0.56	Sept.
			90	83	0.92	May
Problem Solving	5	10	92	27	0.29	Sept.
			92	58	0.63	May
Total	46	122				

TABLE 4

RESULTS OF SEPT. AND MAY TESTINGS FOR GRADE 6

Section	Number of Objectives	Number of Questions	Mean Number Responding	Mean No. Mastering Objectives	Mean Prop. Mastering	Time of Testing
Operations with whole numbers	4	8	85	63	0.74	Sept.
			82	72	0.88	May
Whole number structure	8	23	85	57	0.67	Sept.
			82	74	0.90	May
Fraction Structure	9	25	85	48	0.57	Sept.
			82	65	0.79	May
Operations with Fractions	11	27	84	44	0.53	Sept.
			82	63	0.77	May
Decimals and Fractions	7	21	83	49	0.59	Sept.
			81	66	0.81	May
Geometry	5	14	81	43	0.53	Sept.
			81	62	0.77	May
Charts and Graphs	2	8	81	66	0.81	Sept.
			81	72	0.89	May
Problem solving	6	12	81	32	0.39	Sept.
			80	55	0.69	May
Algebra	5	14	80	42	0.53	Sept.
			81	62	0.77	May
Sets	1	3	83	36	0.43	Sept.
			51	38	0.75	May
Total	58	156				

mastery proportions for the national sample are approximately 12 percent points below the autumn mastery proportions for the DCRMT System Sample. Despite the higher base lines the growth figures for the system sample were on average, more than twice as much as the growth figures for the national sample.

TABLE 5

MEAN PROPORTIONS OF PUPILS MASTERING GROUPS OF MATHEMATICS OBJECTIVES FOR SIXTH CLASS IN PILOT STUDY AND IN 1974/75 NATIONAL SAMPLE

	System Sample		1974/1975 Sample	
	Sept	May	Autumn	Summer
Operations with whole numbers	0.74	0.88	0.70	0.78
Whole number structure	0.67	0.90	0.54	0.64
Fraction structure	0.57	0.79	0.52	0.65
Fraction operations	0.53	0.77	0.47	0.59
Decimals	0.59	0.81	0.42	0.54
Geometry	0.53	0.77	0.48	0.59
Charts and graphs	0.81	0.89	0.49	0.69
Problem solving	0.39	0.69	0.24	0.36
Algebra	0.53	0.77	0.40	0.53
Sets[1]	0.43	0.75		

[1] Not included in 1974/75 version of the test

Again such results should be interpreted in the light of the differences in the samples but they do help to place the improvement in performance of the pilot study sample in the context of the improvement being attained in the typical classroom in the mid-seventies.

Reactions of teachers were generally very positive; teachers also provided useful evaluative comments on the system. In general, they rated the system highly overall, and more specifically, the following aspects of it: the use of behavioural objectives; the use of the pre-test information for diagnosing individual and class strengths and weaknesses and determining instructional emphasis; the year's scheme of instructional units and accompanying tests; and the use of post-test information for evaluating instruction. Other advantages of the system specifically mentioned by the teachers were as follows: (1) the objectives helped the teacher to identify the aims of the curriculum; (2) the system facilitated a developmental approach to mathematics instruction across grade levels; (3) the system enabled the teacher to "strike a balance" in the teaching of concepts and conputational skills; (4) problem solving performance improved; and (5) the detailed information yielded by the tests was very useful for making out reports to parents.

DISCUSSION

The basic purpose of this pilot study was to assess the usefulness of an objective-based instructional management system, incorporating criterion-referenced tests, for the mathematics class in primary school. Its effectiveness was assessed by examining the growth in the mathematical attainments of the pupils in the participating classes, by comparing this growth with that of a national sample not exposed to the system and by soliciting teachers' views on the system. The results indicate that there was very substantial improvement in performance on criterion referenced mathematics tests between September and May (around 26 percentage points, on average), an improvement which was consistently achieved across the different mathematical areas tested and across the grade levels. The growth achieved in grade six was more than twice that achieved by a national sample of six grade classes working through the same programme despite the fact that the system sample started from a higher pre-test performance level in all the mathematical areas. Teachers' comments were very favourable on all aspects of the system and provided suggestions for improving it further.

These results suggest the effectiveness and desirability of an objective-based instructional management system in the mathematics classroom in primary school. Given the apparent feasibility and ease of operation of the system tried out in this pilot study, it would seem appropriate to obtain firm evidence of its value and validity as an approach to mathematics instruction by using it as a "treatment" in an experimental study.

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CRITICAL VARIABLES IN RELATION TO DIFFERENCES BETWEEN THE MATHEMATICS ACHIEVEMENT OF GIRLS AND BOYS

Brenda Sugrue

1. Introduction

There has been a great increase, since the early 1970s in the United States and more recently in the United Kingdom, in research activity in the area of gender differences in mathematics achievement. This research has attempted, firstly to re-examine and identify the nature and extent of differences between the mathematics achievement of girls and boys of various ages and, secondly, to unravel the complex network of possible reasons for, or variables related to, the gender differences that exist. It is, indeed, important that the emphasis of research is focused on the magnitude and nature of such differences as well as on their causes. As Jacklin has stated, "Much discussion has been wasted and many theories generated for differences that do not actually exist."[1]

In Ireland concern has been expressed, in recent governmental and other reports,[2] about girls' under-representation and under-achievement in mathematics at post-primary school level. Such concern appears to have resulted from (1) an awareness of the limitations placed on girls' career prospects, particularly in view of changing patterns within the labour market,[3] (2) the fact that the number of potential mathematicians, engineers and scientists available for employment is reduced[4] and (3) the fact that the mathematical talent and potential of many girls may remain undeveloped.

This paper sets out to identify some of the critical variables related to gender differences in mathematics achievement. However, before considering what might be the "causes" of such differences, the extent and nature of the differences themselves will be examined. Data relating to the achievement levels of girls and boys in mathematics at primary and post-primary levels in Ireland (since 1970) will be presented and compared with some recent data on gender differences in mathematics achievement in England and the United States. Having identified the differences which exist, the critical variables to which the differences have been attributed will be identified and discussed.

2. Achievement Levels

(a) Ireland

(i) Primary School Level

Very little information is available on the comparative levels of achievement of girls and boys in mathematics during the primary school years in Ireland. A superficial analysis of the achievement data reported for girls and for boys in a study carried out by the Department of Education in 1977 and 1979[5] revealed that, in second class (n=1972), the performance of girls, throughout the criterion referenced test administered, was superior to boys': "In no objective did the boys answer more successfully, and in certain instances there were marked differences...",[6] for example, in problems involving addition and interpreting block charts.

The tendency for girls to score better than boys was still in evidence in fourth class (n=2017). However, the differences between their respective scores were slightly less than in second class, and in one category, measurement, boys were slightly superior to girls.[7] In sixth class (n=2005), the tendency for girls to obtain higher scores than boys was reversed. Boys outperformed girls in eight of the ten categories of objectives assessed. Girls were superior to boys in one category, charts and graphs. The categories which produced the largest differences in scores in favour of boys were metric measurement and problems. The smallest differences occurred in the four categories which could be termed computational (rather than involving reasoning, measuring and application) --operations with whole numbers, whole number structure, fractional number structure and operations with fractional numbers.[8]

A study of the mathematical attainments of post-primary school entrants (n=923), carried out by the Educational Research Centre, Drumcondra, in 1974,[9] also found that boys' performance was superior to girls' on 45 of the 55 objectives of the mathematics curriculum for fifth and sixth classes which were assessed. There was a slight difference in favour of girls in the operations with whole numbers and the whole number structure categories. Boys performed better than girls in all other categories, the gender differences being greatest in algebra and, as was found by the Department of Education, in geometry and problems.[10]

(ii) Post-Primary School Level

Results obtained annually in mathematics in public examinations, particularly in the Intermediate and Leaving Certificate examinations, provide a convenient source of information relating to the mathematics achievement of girls and boys at ages 15 and 17 approximately. The following table (Table 1) shows the percentage of those girls and boys, examined in mathematics at Intermediate and Leaving Certificate Levels in selected years between 1970 and 1983, who (1) "passed" (i.e. obtained grade D or higher) and (2) obtained "honours" (i.e. obtained grade C or higher in the higher course paper at Intermediate Certificate level or in the higher level paper at Leaving Certificate level) in mathematics in those examinations.

Table 1

PERFORMANCE OF CANDIDATES IN MATHEMATICS IN INTERMEDIATE AND LEAVING CERTIFICATE EXAMINATIONS

	Intermediate Certificate				Leaving Certificate			
	% Passed		% Passed with Honours		% Passed		% Passed with Honours	
YEAR	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS
1970	74.1	85.0	n.a.	n.a.	76.7	83.5	n.a.	n.a.
1975	76.2	81.5	11.8	20.3	70.5	77.6	2.4	11.5
1980	79.8	86.1	15.7	23.1	71.8	81.4	3.5	11.9
1983	86.2	91.1	14.1	20.4	72.3	78.6	4.1	10.9

Source: Compiled from Department of Education, Statistical Reports, 1969-70; 1974-75; 1979-80. 1983 statistics from Department of Education, Athlone.

n.a.: not available

In each examination in each of the years considered, a higher percentage of boys than of girls passed and passed with honours in mathematics. Indeed, the percentage of boys obtaining grade C or higher in higher level mathematics in the Leaving Certificate examination has been at least double the percentage of girls in each of the years considered. However, the size of this gender difference has been decreasing over the years, with the percentage of girls obtaining grade C or higher in Leaving Certificate higher level mathematics almost doubling between 1975 and 1983.

By comparing the performance of girls and boys in mathematics with their performance in English (a subject with overall participation rates comparable to mathematics) in the Intermediate and Leaving Certificate examinations (Table 2 below), it emerges that the trend of male superiority which is evident in mathematics is completely reversed in English. In each examination in each of the years considered, a higher proportion of girls than of boys have passed and obtained honours in English in the Intermediate and Leaving Certificate examinations.

Table 2

PERFORMANCE OF CANDIDATES IN ENGLISH IN INTERMEDIATE AND LEAVING CERTIFICATE EXAMINATIONS

	Intermediate Certificate				Leaving Certificate			
	% Passed		% Passed With Honours		% Passed		% Passed With Honours	
YEAR	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS
1970	92.5	90.7	n.a.	n.a.	88.2	87.9	n.a.	n.a.
1975	95.3	93.5	26.3	20.1	94.5	91.9	22.1	19.1
1980	94.7	91.0	30.5	23.0	93.0	84.6	24.5	20.9
1983	95.0	91.1	26.9	19.9	94.3	91.9	26.8	22.3

Source: Compiled from Department of Education, Statistical Reports. 1983 statistics from Department of Education, Athlone.

(b) England

(i) Primary School Level

The Department of Education and Science's Assessment of Performance Unit (APU) has carried out a series of three surveys, in 1978, 1979 and 1980,[11] of the performance in mathematics of eleven year old pupils (n-13,000 in each survey) in schools in England, Wales and Northern Ireland. When separate data were reported for girls and boys, the results of the three surveys proved consistent. In all three surveys, boys obtained higher mean scores than girls in the majority of sub-categories of mathematics assessed. Boys had the highest scores relative to girls' in applications of number exercises, and girls had higher scores than boys in computation exercises.[12] These findings are similar to the Department of Education's findings in relation to gender differences in mathematics achievement at age twelve (sixth class) in Ireland which were outlined above.

(ii) Post-Primary School Level

The APU has also carried out a series of three surveys, in 1978, 1979 and 1980,[13] of the performance in mathematics of pupils at age 15+ (n>10,000 in each survey) in England, Wales and Northern Ireland. In each of the three surveys, the mean scores of boys were higher than those of girls in every sub-category of mathematics content, with only one exception--girls' mean scores were higher than boys' in modern algebra in the 1979 survey. The gender differences in favour of boys were statistically significant in 11 of the 15 categories of mathematics assessed. Boys' mean scores were highest, relative to girls', in measurement and geometry sub-categories.[14]

Results of candidates for examination in mathematical subjects in the public examinations taken by sixteen year olds in England--the Certificate of Secondary Education (CSE) and the higher grade General Certificate of Education (GCE) Ordinary Level (O-level) --also show males as having a higher pass rate than females (see Table 3 below), a feature of results in mathematics which is similar to the situation at Intermediate and Leaving Certificate levels in Ireland.

Table 3

PERCENTAGE OF ENTRIES FOR MATHEMATICAL SUBJECTS OBTAINING GRADED RESULTS (CSE AND GCE O-LEVEL EXAMINATIONS)

	CSE		GCE O-LEVEL	
YEAR	FEMALE	MALE	FEMALE	MALE
1970	89.7	91.5	57.0	59.2
1975	83.4	85.9	53.3	60.0
1979	87.1	88.9	52.2	60.6

Source: Department of Education and Science, Statistics of Education, vol.2, for appropriate years.

(c) United States

(i) Primary School Level

The results of two National Assessments of Educational Progress in mathematics (NAEP-I in 1972-73 and NAEP-II in 1977-78) reveal little difference between the mean mathematics achievement scores of girls and boys at ages 9 and 13 (see Table 4 below). However, within specific content areas, a gender differentiated pattern of achievement, similar to that observed among 11/12 year olds in Ireland and England, emerged from NAEP-II data. Females scored higher than males on numeration items and males scored higher than females on application, geometry and measurement exercises.[15]

(ii) Post-Primary School Level

Data gathered by NAEP-I and NAEP-II relating to the mathematical performance of 17 year olds indicated a gender difference which was not evident at ages 9 and 13, as the figures in Table 4 show:

Table 4

NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS IN MATHEMATICS: RESULTS

YEAR	Age	Mean % Correct	
		FEMALES	MALES
1972-73	9	38.1	38.1
	13	52.5	52.7
	17	49.7	53.8
1977-78	9	36.7	37.0
	13	50.2	50.9
	17	46.4	49.9

Source: National Center for Education Statistics, *Digest of Education Statistics* 1982, by W. Vance Grant and Leo J. Eiden (Washington, D.C.: NCES, 1982), p. 29.

At age 17, males' average performance in mathematics was found to exceed that of females at every cognitive level, and differences in favour of males which were evident at ages 9 and 13 had increased by age 17.[16] However, the overall difference between the levels of achievement of the 17 year old girls and boys decreased by 0.6 per cent from the first to the second NAEP.

While there are no public examinations at high school level in the United States comparable to those held each year in Ireland and in England, scores obtained by senior high school pupils, aspiring towards entry to colleges and universities, in the Scholastic Aptitude Test (SAT) in mathematics provide further evidence of a consistent gender difference in favour of males in performance in mathematics at the end of post-primary schooling. The mean mathematical scores for females and males in selected years between 1970 and 1981 were as follows:

Table 5

SCHOLASTIC APTITUDE TEST SCORE AVERAGES IN MATHEMATICS FOR COLLEGE-BOUND HIGH SCHOOL SENIORS

YEAR	FEMALES	MALES
1970-71	466	507
1975-76	446	497
1980-81	443	492

Source: NCES, Digest of Education Statistics 1982, p. 68.

(d) Summary

From a consideration of data on the achievement levels of girls and boys in mathematics in three selected countries (Ireland, England and the United States), it seems that slight gender differences in overall levels of mathematics achievement in favour of boys emerge, at least in Ireland and in England, Wales and Northern Ireland, towards the end of primary schooling. In the United States, where overall levels of mathematics achievement remain less differentiated by gender than in Ireland or England until at least age 13, there is, nonetheless, a differentiated PATTERN of achievement, in relation to particular content areas of mathematics, which is similar to that found in Ireland and in England, Wales and Northern Ireland. Gender differences in favour of boys become more pronounced during the years of post-primary education, until at age 16/17 (even in the United States), the levels of achievement of girls (as a group) in mathematics are clearly lower than those of boys.

3. Critical Variables

This section of the paper attempts to isolate some of the main factors which appear to cause the situation whereby girls, who (at least in the case of Ireland) appear to be outperforming boys in mathematics until the age of ten, proceed to be outperformed by boys throughout the rest of their years at school.

(a) Participation Rates

Unequal participation by girls and boys in mathematics courses at post-primary school level is a critical variable which partly accounts for the INCREASE in the extent of the gender difference in mathematics achievement in favour of boys which occurs during the post-primary cycle of education. In the United States, in England and in Ireland, when mathematics courses become optional, particularly advanced courses, fewer girls than boys enroll in those courses.[17]

In Ireland, the gender differences in mathematics achievement which exist at Intermediate and Leaving Certificate levels reflect gender differences in participation rates in higher course mathematics at Intermediate Certificate level and in higher level mathematics at Leaving Certificate level, as the figures in Table 6 below illustrate:

Table 6

PARTICIPATION RATES OF GIRLS AND OF BOYS IN MATHEMATICS EXAMINATIONS AT INTERMEDIATE AND LEAVING CERTIFICATE LEVELS

	Intermediate Certificate				Leaving Certificate			
	% examined in maths. (higher or lower course)		% examined in higher course maths.		% examined in maths. (higher or ordinary level)		% examined in higher level maths	
YEAR	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS
1970	98.7	99.5	20.2	34.6	69.9	95.5	2.8	20.4
1975	99.3	99.5	18.6	28.7	84.6	98.3	3.6	17.6
1980	97.9	93.4	24.5	31.1	93.1	98.2	4.1	15.5
1983	99.3	98.6	28.1	32.4	96.4	98.8	5.9	17.2

Source: Compiled from Department of Education, Statistical Reports. 1983 statistics from Department of Education, Athlone.

Participation rates for both sexes in mathematics in the Intermediate and Leaving Certificate examinations are high. For example, in 1983, 99.3 per cent of girls and 98.6 per cent of boys were examined in mathematics at Intermediate Certificate level, and 96.4 per cent of girls and 98.8 per cent of boys were examined in mathematics at Leaving Certificate level. However, a lower percentage of girls than of boys take the higher course/level papers each year, the gender difference becoming larger at Leaving Certificate level.

It seems that a far lower proportion of girls than of boys who would qualify to proceed with the study of higher level mathematics for the Leaving Certificate examination, on the basis of achievement in mathematics in the Intermediate Certificate examination, actually do so.[18] For example, comparing the candidates who obtained grade C or higher in higher course mathematics in the

Intermediate Certificate examination of 1978 with those who were examined in higher level mathematics in the Leaving Certificate examination of 1980, one half of the proportion of boys who obtained grade C or higher in 1978 (2461 out of 5198) proceeded to attempt higher level mathematics in 1980, while less than a quarter of the girls did so (847 out of 3832).[19] It is unlikely that gender differences in such variables as (1) drop-out rates after the Intermediate Certificate examination, (2) pupils who may be repeating the Leaving Certificate examination, (3) pupils who may be in schools which have a three-year cycle to the Leaving Certificate examination and (4) external candidates would account for the gender difference in participation rates in higher level mathematics which becomes so pronounced in the Leaving Certificate examination.

In 1983 only 5.9 per cent of female compared with 17.2 per cent of male candidates were examined in higher level mathematics. Admittedly, the situation has improved considerably since 1970, but the fact remains that of the total number of candidates examined in higher level mathematics in the 1983 Leaving Certificate examination, only 29.5 per cent of them were girls. This means that boys (as a group) automatically have a greater chance than do girls (as a group) of attaining higher levels of achievement in mathematics prior to leaving post-primary education.

Within levels of participation, with the exception of higher level mathematics in the Leaving Certificate examination, boys maintain their superior performance to girls'.[20] In the United States, NAEP-II data also indicated that, at age 17, gender differences in mathematics achievement persist even within levels of participation.[21] In Ireland, girls' often superior performance to boys' in Leaving Certificate higher level mathematics (see Table 7 below) is largely, if not completely, due to the smaller, more select group of girls than of boys who attempt the higher level paper (see Table 6 above).

Table 7

PERFORMANCE OF CANDIDATES IN LEAVING CERTIFICATE HIGHER LEVEL MATHEMATICS

	% Passed (Grade D or higher)		% Passed with Honours (Grade C or higher)	
YEAR	GIRLS	BOYS	GIRLS	BOYS
1970	83.8	84.9	n.a.	n.a.
1975	88.9	88.3	58.3	59.3
1980	97.2	94.2	80.4	75.2
1983	93.3	90.2	67.9	62.2

Source: Department of Education, *Statistical Reports*. 1983 statistics from Department of Education, Athlone.

The fact that gender differences in mathematics achievement emerge prior to the stage when mathematics courses become optional and also within levels of participation suggest that equalisation of participation rates in higher level mathematics courses would not cause gender differences in mathematics achievement to disappear. Other variables are also involved and may prove helpful in explaining, for example, why many more boys than girls with similar levels of achievement in mathematics at Intermediate Certificate level actually proceed to study higher level mathematics for the Leaving Certificate examination.

(b) Other Variables

Speculation about the causes of females' under-representation and under-achievement in mathematics has led to investigations of the relationships between gender differences in various cognitive, affective and educational variables and gender differences in participation and performance in mathematics. No single variable emerges as THE cause of such differences and, indeed, while it is helpful, for the purposes of investigation and discussion, to isolate the variables, in reality none of the variables are independent. The cognitive, affective and educational variables, which research has indicated as being most critical in relation to gender differences in mathematics achievement, will now be discussed.

(i) Cognitive Variables

Maccoby and Jacklin concluded, in 1974, that no differences existed between females and males in terms of general intelligence, but that differences in three specific cognitive abilities were "fairly well established"[22]--female superiority in verbal ability, and male superiority in both spatial ability and mathematical ability, the differences becoming more apparent during adolescence.[23]

Male superiority in spatial ability and, in particular, in spatial visualisation, which in mathematical terms requires that objects be (mentally) rotated, reflected and/or translated, has been cited as a possible cause of gender differences in favour of males in mathematics achievement.[24] This explanation may seem plausible in view of the fact that the particular topics in mathematics in which male superiority is greatest (geometry, measurement and problem solving) appear to be more closely related to spatial visualisation than are those topics in which females tend to excel (computational). However, research to date has failed (1) to clarify the role of spatial visualisation in mathematics learning,

(2) to clearly define what is meant by "spatial visualisation", (3) to ensure that tests used to measure this ability are comparable and (4) to consistently find gender differences in favour of boys on tests of spatial visualisation.[25] Indeed, gender differences in performance on a spatial visualisation task were shown to be eliminated or even reversed by a brief training procedure.[26]

Such a finding draws the nature versus nurture controversy into speculation regarding the origins of gender differences in cognitive abilities and, consequently, in mathematics achievement. Gender differences in cognitive abilities have been attributed, on the one hand, to biological differences between the sexes (brain lateralisation, hormonal and genetic differences)[27] and, on the other hand, to differences in the socialisation process which may encourage the development of different abilities in girls and boys, abilities which are associated with the appropriate adult sex roles in the culture.[28] The cultural hypothesis seems more acceptable than the biological one, in view of the fact that the extent of gender differences in mathematics achievement varies with culture.[29] Petersen argues that our sociocultural stereotypes about cognitive skills and occupations are far more restrictive in terms of gender than are any biological potentials.[30] For some children, cultural myths are transmitted through the various socialising agents (parents, peers, teachers, the school, the media and books) and are translated into personal beliefs which can affect the development of cognitive abilities in sex-typed intellectual domains such as mathematics.[31]

Many studies have shown that children seem to be aware of sex-role standards from a very early age, leading girls and boys to have highly sex-typed occupational goals and to view particular skills (e.g. social, verbal and artistic) as feminine, and others (e.g. spatial, mechanical and athletic) as masculine, and, beginning at age 12, leading boys to predict that science and mathematics will be relevant to their work styles.[32] The emergence of gender differences in mathematics achievement and course selection, as well as differences in the verbal and spatial domains, at adolescence may be partly due to stronger sex-role socialisation during that period.

(ii) Affective Variables

Many studies, in the United States and in England, have found that girls have less positive attitudes towards mathematics than do boys, girls' attitudes deteriorating from the age of 10 onwards,[33] when, again, girls and boys become more aware of their appropriate sex roles in society. Recent research has isolated and measured distinct components of attitude, such as perceived sex-appropriateness of mathematics, perceived usefulness of mathematics and confidence in mathematical ability,[34] in order to find which components are most critical in relation to gender differences in mathematics achievement.

The attitudinal variable which has been found to differentiate most consistently between the sexes, and therefore seems to be the most critical attitudinal variable in relation to gender differences in participation and achievement in mathematics, is confidence in mathematical ability. This variable concerns the degree of confidence which a mathematics learner places in his or her ability to learn new mathematics and to perform well on mathematical tasks.[35] The literature supports the hypothesis that there are gender differences in favour of males in confidence in mathematical ability.[36]

In addition, confidence in one's ability to learn mathematics seems to be more highly correlated with achievement in mathematics than any other affective variable.[37] It appears that girls' lesser confidence in their own mathematical ability is related to their avoidance of higher level mathematics courses and to their lower level of achievement, relative to boys', in mathematics.

(iii) Educational Variables

Marland believes that factors within schools, such as school organisation, teacher expectations, teacher-pupil and pupil-pupil interaction, may embody, respond to and amplify imagined differences between the sexes, leading individuals to have distorted views of themselves and their potential.[38] In the International Review on Gender and Mathematics it was stated that

> The development of a student's self-concept of his or her mathematical abilities... is a process which is remarkably influenced by the teacher... It can easily be assumed that a girl will make no special effort to solve a mathematical problem when the teacher gives her the information that she is not expected to be successful because of lack of ability or because mathematics is not appropriate for her. [39]

A study by Becker, in the United States, demonstrated how gender differentiated teachers' expectations for pupil performance and behaviour were transformed into a sex-biased teacher-pupil interaction pattern.[40] The classroom environment tended to reinforce traditional sex typing of mathematics as male.[41]

In Ireland, Hannan et al found that perception of teacher expectations and support was an important variable for girls in choosing to study higher level mathematics for the Leaving Certificate examination, whereas this variable had no effect among boys.[42] Girls, say Hannan et al

> ...need much more support than boys in staying at higher level. They appear to receive less support. A much more supportive attitude is, therefore, required for girls taking Higher Maths - and particularly so in the transition from junior to senior cycle where so many girls drop out, even when their Inter. Cert. marks were very high. [43]

It is a common finding in anh large-scale study of mathematical achievement that the occurrence of gender differences varies from school to school.[44] Features of school organisation, such as provision and allocation of higher level mathematics courses, deployment of qualified mathematics teachers within the school, degree of curricular specialisation of the school, and the predominant sex of pupils attending the school, may also contribute to conveying to girls the message that higher level mathematics is not as appropriate an option for them as it is for boys. Hannan et al found that there was a greater degree of streaming or setting for higher course mathematics in the junior cycle in boys' than in girls' secondary schools.[45] In girls' schools more flexibility was afforded to pupils in choosing to study or not to study higher level mathematics. In a sample of 86 schools, Hannan et al found that 17.0 per cent of girls compared with 8.1 per cent of boys were excluded from taking higher level mathematics for the Leaving Certificate by virtue of being in schools that do not teach it.[46] Hannan et al also found a persistent problem of a lack of suitably qualified mathematics teachers in all post-primary schools in Ireland, but it seems that boys' schools are more successful than girls' in deploying the teachers with qualifications in mathematics within the school in order to maximise participation rates in higher level mathematics.[47]

(c) Summary and Conclusion

Some theorists and researchers argue that innate differences between the sexes result in gender differences in cognitive abilities and, consequently, in achievement in particular subject areas, mathematics being one of those areas. Whether or not that is the case, cultural factors play a large part in the perpetuation and development of gender differences in participation and performance in mathematics. Cultural expectations of stereotyped sex roles, reinforced by parents, schools and teachers, may shape different attitudes towards mathematics among girls and boys. If mathematics is regarded as a male domain and if boys are believed to be "better at mathematics" than are girls, then girls' confidence in their mathematical ability may be undermined and their levels of participation and achievement in mathematics and related careers diminished. The Minister for Education, Mrs. Gemma Hussey, recently advocated positive interventions at all levels from governments, schools, teachers and parents in order to redress such gender differences as those outlined in this paper.[48] However, as Fox argues,

> ... if all parents, teachers, and the general public were sensitized to their sexist beliefs and changed their attitudes and behaviours, the mathematical mystique might vanish into the air without any other intervention being necessary. [49]

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ENTERPRISE DEVELOPMENT AND ENTREPRENEURSHIP IN THIRD-LEVEL COURSES IN IRELAND

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Introduction

Within the past three years enterprise development, small business management and entrepreneurship have become fashionable concepts both within the world of training and education and in the Irish public sector generally. The Industrial Development Authority, the Shannon Free Airport Development Company, the Youth Employment Agency, the National Manpower Service, the National Board of Science and Technology, the Institute for Industrial Research and Standards, the Irish Productivity Centre, AnCO, CERT and the Irish Management Institute have all been involved in this effort in one way or another, as have some third-level colleges, vocational educational committees and individual second-level schools.[1] In October 1984 the National Council for Educational Awards adopted a report from its own Board of Business Studies[2] which commmitted it to encouraging colleges to incorporate aspects of enterprise development and entrepreneurial skills into courses in business studies and other disciplines.

This paper explores some of the educational implications for colleges and for NCEA in areas like course design, teaching strategies and assessment. It also looks briefly at the economic and social influences which have brought about this interest in enterprise development, what needs the courses are perceived as meeting that were not previously catered for and what implications such non-traditional courses may have for third level, and perhaps eventually second-level, colleges.

Some Economic and Social Issues

The emphasis on the small business scene is a relatively recent phenomenon within third-level education. The establishment of the Small Business Institute Programme in the United States in 1972 would appear a seminal development as far as the English-speaking world is concerned.[3] This was an attempt by the American government to foster a special relationship between American business schools and colleges and small business, and to take the process of learning about founding a small firm into the American formal educational system by encouraging business students to become actively involved in providing assistance to small firms.

However, there have been other and perhaps more important influences. Governments in Western Europe have also been showing an increased interest in small and medium-sized firms and in the generation of new technology-based firms. Economic stagnation and high unemployment, together with dissatisfaction with the results of traditional macro-economic policies, have rekindled interest in technological change as a primary factor in attaining the economic and social goals of society. Science and technology policy is being re-evaluated in most countries and a need has been felt to direct policies away from the large-scale and prestigious projects of the fifties and sixties to those which can have a more positive impact on present-day economic and social problems.[4]

Smaller firms have been seen more and more as one of the favoured vehicles for economic regeneration. Claims are made that small and medium-sized industries are more innovative, more suitable as instruments of regional development policy and, above all, are believed to be the most potent potential generators of new jobs. There are examples to point to. Large areas of semi-conductor technology has been developed by small firms such as Motorola and Texas Instruments and not by the giants like IBM. Likewise the Xerox machine was a small firm development. It appears that small and medium-sized firms can make a major contribution in some areas like scientific instruments and mechanical engineering, where capital costs are relatively small, but not in areas like chemicals or pharmaceuticals where the costs of innovation are high.[5] It was calculated that during the period 1969-76 two thirds of all new jobs in the USA were created in firms with less than 20 employees, 80 per cent of these being in firms that were less than five years old.[6] It is probably true to say that the superior employment-generating potential of small firms is only true of certain small firms, particularly young small firms, especially those that are technologically innovative.

It would not be accurate to conclude that policy-makers have been won round to Schumacher's belief that "small is beautiful",[7] but there is ample evidence that attention is directed increasingly to the small firm as a source of innovation. The U.S. National Science Foundation reached the conclusion that innovation was inseparably linked with entrepreneurship and noticed a trend in the USA towards a lessening number of entrepreneurs. Innovation centres were conceived as one form of vehicle within universities for stimulating technological innovation and for increasing the entrepreneurial tendencies of graduates as they pursued their courses.

The perception of the importance of small and medium-sized industry also appears to have varied from country to country. In Japan they were seen as important suppliers of low cost, high quality and often innovative components and sub-assemblies to the major corporations, while in Europe interest focused mainly on traditional and medium-technology sectors of the economy.[8] In the USA on the other hand small business is seen as the corner-stone of a free market economy, support for small industry is firmly established in legislation and the political rhetoric from 1970 onwards would appear to have been helpful in encouraging small business as a concept.

It has also been suggested that one of the only tangible results of the youth revolts of the 1960s has been a great desire on the part of young people to be their own masters and to control their own lives. Higher education has led not only to changing patterns of life-style but to a search for a different style of work, and that has led to a desire to be on one's own which provides an impetus for the creation of small business among the better educated.[9]

In Ireland the first signs of educational activity in the sphere of enterprise development took place in the late 1970s in some third-level colleges (notably UCD[10] and NIHE, Limerick), at the Irish Management Institute[11] and in Shannon Development.[12] There were good reasons why this interest should have existed here and why a movement should take off in Ireland when enterprise development was adopted in a major way by bodies like the Industrial Development Authority and AnCO.

Essentially there was a dawning realisation that foreign investment through multinational companies with a heavy dependence on "assembly-type" operations was in the longer term likely to be a questionable vehicle for viable economic growth in the Irish economy. Experiences like Ferenka had begun to ring warning bells years before Fords, Dunlops and Travenol made this only too obvious. The absence in many instances of marketing operations, and more important of research and development, had been noted in the 1970s.[13] In many ways the success and sophistication of the Industrial Development Authority tended to obscure this problem for much of the 1970s. However, as competition for foreign investment became fiercer, the importance of indigenous enterprise became clearer. This importance had been adverted to in the late 1970s, but it received its best known articulation with the publication by the National Economic and Social Council in 1982 of the Telesis Report.[14]

That report saw the greatest need for Irish industrial policy in the 1980s as lying in the better management of indigenous industry, both manufacturing and raw-material based.[15] It saw successful indigenously-owned industry in the long-term as essential for a high income country, and observed that no country has successfully achieved high incomes without a strong base of indigenously-owned manufacturing companies in traded business. It saw home-based companies as inevitably bringing managerial and high-skilled technical employment and a requirement for a high level of services, and it also felt that when the going is rough, they tend to take decisions in line with the national interest of the country in which they live and in which most of their assets exist.[16]

When the White Paper on Industrial Policy eventually came to be issued in July 1984 it accepted that priority should be given to the development of internationally-trading indigenous industry, although it did not accept the case for a substantial reduction in grants to foreign firms.[17]

The Education Sector

Much of the educational provision in the newer technological sector which grew up in the 1970s rested on the assumption or aspiration that the successful students would slot into the new growth areas such as electronics, chemicals and pharmaceuticals, which were being attracted into the country. Unconsciously perhaps many of the new courses educated their graduates to become employees with all the accompanying thought-patterns of dependence. However, the impact of recession, the slow down of foreign investment and the demographic realities of a rising young population have been major factors in focusing the minds of so many public bodies and decision-makers on the question of entrepreneurship and enterprise development.

Enterprise is a quality possessed in some form by everybody. It is the application of the quality of enterprise to the creation of a business that is the phenomenon which we call entrepreneurship. There has not been any great evidence of native entrepreneurship in Ireland since the foundation of the state.[18] This is in marked contrast to the experience of the Irish abroad who, within the space of two or three generations, have become one of the most affluent ethnic groups in North America and elsewhere in the English-speaking world. Now, however, many of those faced with the realities of industrial and commercial investment in Ireland have begun to accept the need for indigenous entrepreneurship and in recent years there has begun to be an interaction between higher education and both industry and the industrial promotion agencies that did not exist in the 1970s. The bodies that are turning towards the education and training sectors are doing so at a time when, because of the precarious state of the labour market, most of the talented students leaving second-level education are proceeding to higher education. Many of the business leaders and entrepreneurs of the future must be expected to come from their ranks. During their time in higher education they should at least be exposed to the suggestion that they consider the possibility of themselves being the generators of new business and services, and they should have it borne in on them that the long-term health, if not indeed the viability, of the country depends to a considerable extent on the present generation of students.

Educational Implications

There is a belief that entrepreneurship cannot be taught and that in any case institutions of higher education are not likely to be the seminaries of entrepreneurial behaviour. There is a body of research, including some Irish,[19] which would indicate that many entrepreneurs owed little to the formal education system. There is also the view that the school for entrepreneurs is a time of trial and training with a rough curriculum often involving business failure, lost jobs, broken partnerships, exploited sponsors and time in the bankruptcy courts.[20] Yet another view is that higher education is fundamentally suspicious, if not indeed contemptuous, of commerce and that there are no schools of business but only academies for corporate middle management.[21] These have been traditional images of the entrepreneur, and they may well have some validity still with regard to entrepreneurs who branch into self-employment from a craft background.

However, over the last twenty years a new brand of entrepreneur has appeared in many countries. The research has shown that the predominating attraction of entrepreneurship is to achieve personal fulfilment and that this attraction is experienced largely by employed persons who come from occupations associated with higher levels of educational qualifications. The research also repeatedly emphasises that many among this newer brand of entrepreneur are not primarily motivated by money or financial considerations,[22] although of course money is and always will be one yardstick. There is even evidence that those who are attracted into the market place primarily in pursuit of wealth or a higher standard of living are not the ones who are most likely to produce the economic development, as they are not oriented enough towards achievement or towards doing a job for its own sake.[23] This concept of an entrepreneur, however, is not, I suspect, the predominant one in Ireland. It is important that it should move in that direction and that our concept of entrepreneur Irish-style does not become that of a character operating in the shade of the black economy with all the implications that will have in the long-term for the quality of our economic and social life. The creation of new, innovative and employment-generating business is an extremely challenging and complex task and one which draws on a very wide range of skills and expertise. Education on its own does not make entrepreneurs, but it can help to provide both the requisite personal development and the techniques. Introducing it into formal courses is a way of sowing seeds. Arguably this should be done much sooner and for some time to come third-level education may be performing remedial functions in this regard. However, third-level education has a habit of influencing what goes on in second-level schools. Enterprise development is essentially about creativity, innovation and resourcefuness. By its nature it is likely to become interdisciplinary and, although its initial development is most likely to occur in the third-level business schools, it is also likely to influence other more technical disciplines which themselves may more readily generate business ideas. Interdisciplinary studies will present administrative and assessment problems in colleges and among validating bodies like NCEA, but that is not an argument against them.

Curriculum Development and Assessment

The experience, methods and materials needed to develop small firm managers are very different from those needed to help students understand how to make strategic choices or learn such basics as the preparation and interpretation of cash flows.[24] Colleges may within a few years have to decide where their priority lies, but the first tentative suggestions from NCEA to the colleges where it approves courses have at this stage tended to emphasise the importance of exposing full-time students to the concepts and techniques of enterprise development and business formation. What should courses contain? The Working Party on Enterprise Development, referred to earlier, suggested an outline of the issues which require to be addressed.[25] Here I should mention that the working party was very fortunate to have the services of Dr. John Murray of UCD who has been one of the pioneers in this field in Ireland.

The suggested outline aims at inculcating a blend of analytical and practical skills. One would also expect the courses to have attitude objectives in the sense that one would hope that students would acquire a sense of excitement about the process of enterprise creation and renewal.[26] It also contains a mechanism whereby students can assess themselves in an effort to ascertain their own strengths and weaknesses with regard to entrepreneurship. This latter is an important function. One should not expect that all students who take a course in entrepreneurship are going to be successful entrepreneurs, and realistically we would expect that only a minority are likely to establish or be involved in establishing viable businesses. It is nevertheless important that the process be understood by those other than entrepreneurs. Enterprise is not confined to the establishment of a joint stock company, and entrepreneurial behaviour and an understanding of the entrepreneurial process are important in existing businesses, in co-operatives and in the ranks of the management of public bodies and advisory agencies.

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The outline course structure has nine parts. The first deals with the environment of entrepreneurship including forms of new native enterprise. The second deals with entrepreneurs and entrepreneurship, and the evaluation of entrepreneurial orientation and skills would introduce selfassessment at this point. It is not proposed here to go into the question of entrepreneurial types or the characteristics of entrepreneurs but it is worth remarking that this is one area where we are reasonably well served by Irish research and case studies.[27] The third part of the course structure would be concerned with creativity and new venture development and would include exercises in problem-solving and the generation of new business ideas. The fourth section deals with the innovation process and the translation of individual business ideas into commercial reality, while the fifth would look at entry into business and alternative entry strategies. The sixth part would concentrate on the financial, state support and other support organisations while the seventh would deal with both the idea and the nuts and bolts of a business plan. The eighth section is concerned with launching the new venture and the ninth with the question of managing growth. This deals with the challenges of rapid growth and the dangers of failure in the marketing, financial, operations, organisation and personal sphere. Running through the course would be a new venture planning project, which would be either personal or group-based and which ideally would be interdisciplinary. The project work would commence after the students had been introduced to the self-assessment exercise.

To make such a curriculum work it is certain that teaching staff will have to develop their own material.

Some material can be adapted, particularly from the basic textbooks on entrepreneurship of which there is no shortage internationally. Likewise Irish case studies and exercises in creativity, innovation, business planning, project appraisal and project presentation are not something that can be easily taken off the shelf. One can see, however, that in terms of teaching strategy quite a lot of the initiative will come from students and the role of the lecturer will resemble that of a consultant. By definition a course dealing with entrepreneurship should attempt to encourage student initiative wherever possible.

How do institutions validate and assess these courses? Ultimately the success of the courses must be judged by their success in generating new businesses and entrepreneurial behaviour. However, the period of gestation for a successful new business can often be 15 to 20 years, so there obviously have to be interim assessments of the more conventional kind. One can of course make the curriculum objectives sufficiently explicit and behaviourably stated so that measurement becomes possible. One can measure cognitive objectives through traditional examinations and continuous assessment and through the project work or the writing of cases. Project work would also be used for assessing the skill-related objectives. This is very much staying within conventional moulds. One suspects that, if there is a growth in courses of this nature, the boundaries of what constitutes assessment may change in unexpected ways and the certainties of our grading systems may be called into question.

It was noted earlier that courses in enterprise development are of a non-traditional variety. One of the manifestations of this will be the tendency to become interdisciplinary. This will be more difficult to assess, as the appropriate expertise will not always be easily assembled. Breaking down disciplinary barriers can also play havoc with college administration, and colleges and interested individuals are going to have to be entrepreneurial in crossing these boundaries. It is also fair to say that work of this nature may be constrained if it does not have appropriate administrative support. Experience to date would suggest that academic staff who have implemented programmes in this area have not merely shown the characteristics of entrepreneurs, but have often had to work the kinds of hours that so many entrepreneurs will tell you distinguish them from those who enjoy the more civilised time schedules common to the salaried employee.

Conclusion

This paper has briefly described some of the social and economic backdrop against which the renewed interest in entrepreneurship has arisen, and it also sketched the direction which a segment of Irish higher education might take. In conclusion it is worth asking what in the long term one might realistically hope to achieve and also whether higher education has anything more than a marginal contribution to make. It is argued here that in encouraging colleges to move in this direction, the education system is being asked to make two contributions:

(a) to help overcome various cultural discriminations which appear to be implicit in Irish society,[28]

(b) provide a grounding in the skills necessary to translate students' enterprise and entrepreneurial drive into successful and effective businesses.

Implicit in this is an act of faith in both the education system and its personnel. This, however, has to be seen as a long-term project and a long-term investment, which in any case is one of the justifications for higher education. If this particular topic does not develop academic respectability or put down academic roots it is unlikely to be anything other than a passing quasi-political fashion.[29] The argument in this paper is that it is too important to be allowed to enjoy that fate, but there is a very real danger that its speedy adoption in recent years by a number of public bodies may lead eventually to an equally speedy disillusionment in the absence of quick results. There will not be quick results, because a mastery of enterprise development is unlikely to be achieved in a few months and viable employment-generating businesses are unlikely to be created by 20 year old entrepreneurs.

There is also the question whether entrepreneurship is of causal significance in the industrial transition in a society. Is it a crucial factor in the development process or is it an extraneous one, outwardly significant, but really marginal as far as being one of the causes of economic growth and development?[30] Economists in general, though with some notable exceptions, have tended to stress the importance of economic factors, while non-economists have tended to stress non-economic factors such as entrepreneurship. If one were to take the economists' side of the argument, then one would argue that it is much more important that one tackle issues like our financial, taxation and industrial policy and that the crucial role of government be established. However, the evidence suggests that the economic and non-economic factors both constitute necessary conditions for the emergence of entrepreneurship. The non-economic considerations would include sociocultural factors like legitimacy, social mobility and social integration and how they relate to entrepreneurship.

This paper has not been suggesting that entrepreneurship on its own is the central issue in the resolution of that state's economic and employment problems, but it is argued that it is a key variable and it is one in which the education system has a key role to play. As Professor Michael Fogarty[31] has argued, the general education of people in Ireland has not been such as to breed the capacity or appetite for independent action, but rather for the role of a functionary under direction. We tend to have a reactive rather than a motivated society. There has been no shortage of those against whom we can react over the last hundred years - be they the landlords, the English, the church or latterly the government. In 1973 Fogarty discerned the need for a shift from fixed rules of conduct to a more flexible approach which throws on individuals and social groups the responsibility for defining the problems facing them and the rules of conduct applicable to them. We have a clearer picture of the size of the challenge that we are faced with than we had in 1973. The solution depends very largely on our own ingenuity and inventiveness. I like to believe that our institutions of higher education have more than a marginal contribution to make to that process.

Any views expressed in this paper are those of the author and are not necessarily those of NCEA.

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HIGHER LEVEL VOCATIONAL REHABILITATION: THE DEVELOPMENT OF A NEW SERVICE

Peter Davies

When the topic of handicap comes up in educational conversations, perhaps the most widespread reaction is one of benign dismissal, even by teachers. There is an automatic reaction that within the context of our highly competitive, performance-score-oriented education system, the handicapped can be relegated to the lower divisions of the education league. That has generally applied at all levels of the education system. It is true that occasionally disabled people of exceptional ability have succeeded in completing higher or further education, but for the vast majority there have been few if any opportunities for post school development.

This paper describes the background to and current state of development of the Rehabilitation Institute's National Training College at Roslyn Park, Sandymount, which aims to prepare disabled people of ability for open employment and with a foundation for further study. The development is placed in the context of vocational rehabilitation services in Ireland, and other E.E.C. member states and a number of the key issues in the development are discussed.

The 1975 Working Party Report Training and Employing the Handicapped[1] usually referred to as the Robins Report defines Rehabilitation as "the development and restoration to the maximum extent of a handicapped person's physical, mental, occupational and social potential."[2]

The two elements within this process are medical rehabilitation and vocational rehabilitation, the latter being defined by the International Labour Office as "that part of the continuous and coordinated process of rehabilitation which involves the provision of those vocational services, e.g., vocational guidance, vocational training and selective placement, designed to enable a disabled person to secure and retain suitable employment."[3]

Before discussing how that preparation is carried out, it is also necessary to have a definition of handicap, there are several. The 1984 Green Paper on services for Disabled People Towards a Full Life[4] uses the medically-based World Health Organisation specification.

The International Labour Office defines a disabled person as one "whose prospects of securing and retaining suitable employment are substantially reduced as a result of physical or mental impairment."[5]

The Robins Report definition is

> Any limitation, congenital or acquired of a person's physical or mental ability which affects his daily activity and work by reducing his social contribution, his vocational employment prospects or his ability to use public services. 6

Interestingly, the NESC report Major Issues in Planning Services for Mentally and Physically Handicapped Persons[7] adds a further sentence:

> A handicapped person is one whose handicap (or potential handicap) is recognised by the authorities appointed to this purpose with a view to rehabilitation. 8

In Ireland this gives the Health Boards the power to decide whether or not a person is handicapped. It also allows the person to decide whether or not he or she wishes to be regarded as handicapped and that in turn may depend on what it is the person wishes to do. A person may have a handicap, but is it disabling?

There are three major categories of handicap.[9]

Physical:	including loss of function in or absence of limbs or internal organs such as heart or kidney; deafness and hearing loss; visual impairment and blindness; congenital handicaps such as Spina Bifida, Scoliosis, Cerebral Palsy.
Mental Handicap:	Categorised as mild, moderate, severe and profound.
Mental Illness:	Including Psychiatric, Psychological, Emotional, and behavioural handicaps, including psychoses, mood disorders, personality disorders.

There are certain specific handicaps which do not fit neatly into these categories, for example, specific learning difficulties such as Dyslexia, but which may nonetheless be catered for within some rehabilitation services.

A range of vocational services exists in Ireland provided by voluntary organisations and Health Boards. Services for adults, i.e. those aged 16 years and over, are co-ordinated by the National Rehabilitation Board, which is a state body subject to the Minister for Health. It is a feature of Irish vocational rehabilitation services that the majority are operated by private voluntary organisations rather than by the state, which is the provider in most other European countries.

The Green Paper[10] lists three types of vocational rehabilitation centres with the following capacities.

Table 1. Types of vocational rehabilitation centres

Services	Approximate number of places Residents	Approximate number of places Day Attendances
Skill training centres	-	430
Community Workshops	-	1880
Special category workshops	3105	2515
Total	3105	4825

Source: Green Paper para 5.32, p. 61.

The special category workshops are largely for specific disabilities and include those attached to psychiatric hospitals and special schools, and long term centres for the mentally handicapped.

Community Workshops are intended to provide both training and sheltered employment, though there is no basis at present for the funding of the latter element. Skill training centres provided training at a higher level, through more clearly structured and time constrained courses.

The Rehabilitation Institute is the largest single provider of vocational rehabilitation services in Ireland. It currently provides a total of 2,000 of those training places in 41 locations throughout the country. The majority of these places are in Community Workshops, where training is based on industrial processes and production. The Institute was founded in 1969, as the Rehabilitation Training Board to provide training for T.B. victims. It now caters for all forms of disability.

Both in Ireland and internationally there is a recognition that it is preferable for disabled people to receive their education and training on an integrated basis with non-disabled people.[11/12] In Ireland, both Robins and the Green Paper note this principle. Robins states explicitly that AnCO should have some responsibility for training disabled people[13] but little progress has been made in this regard in the 10 years since the Report. It is not the purpose of this paper to discuss that issue. Suffice it to say that it became apparent that there was a significant number of disabled people of potential who were not being catered for within existing provision. The Roslyn Park National Training College is the Rehabilitation Institute's response to that situation.

Client Population

The population of the Roslyn Park National Training College is made up as follows:

Primary Disability		Sensorial	
Acquired	16.7%	Hearing loss	16.7%
Congenital	23.1%	Visual	2.8%
Epilepsy	9.2%		
Psychological, Emotional, Behavioural		**Other**	
	30.6%		0.9%

(Includes Dull/Normal functioning, specific learning difficulties)

The College at full capacity should cater for 150 - 200. Approximately 45 per cent are male and 55 per cent female. The minimum age is 16 years, but there is no upper limit. At the time of writing the oldest person was aged 52 years, but the average is 23 years. It is thus a very heterogeneous group. Internationally, one of the most striking features is the 30 per cent with psychological, emotional and behavioural problems, i.e., those generally categorised as having psychiatric disabilities or being "mentally ill". Only a few centres in Europe integrate disabilities to this extent. In most countries there are specific and separate services for each main category of handicap and indeed for sub-groups such as the deaf and the blind. Of the major vocational rehabilitation centres within EEC countries only the Heidelberg (FRG) and Mulhouse (France) centres make integrated provision for those with psychiatric problems.

The intellectual demands of the courses in Roslyn Park are such that mentally handicapped people are not catered for in the College, though they are provided for in the Institute's Community Workshops.

Major Issues

It was necessary to address a number of key issues in planning the Roslyn Park service.

At the practical level the major issues were:

How do we assess applicants to maximise the chances of success on the chosen course?

What other services should we provide to achieve the goal of Vocational Rehabilitation?

What are the implications for curriculum design strategies of the nature and needs of clients?

Referrals and Assessment

All clients are referred by the National Rehabilitation Board (NRB) through their Vocational Services. Referral consists of an application form submitted by the Vocational Officer of the NRB, which may be accompanied by a psychological report. The relevant Health Board must approve the application for funding purposes. Applicants are then called in groups to the College's Assessment Unit. The model for assessment adopted by the NRB, is predictive:

> Vocational Assessment is the process of assessing an individual's physical, mental and educational abilities, tolerances and limitations in order to predict his/her current and future employment potential and adjustment. 14

Most European Centres also use a predictive model. The primary aim of the Roslyn Park Unit can be described as enabling:

> to enable clients to take account of their individual requirements, interests, weaknesses and strengths in relation to currently available opportunities, when constructing realistic and viable vocational plans. 15

An initial interview takes place prior to commencement and information not in the application may also be gathered, e.g., from school, hospital, psychiatrist.

During the first stage clients are tested on cognitive functioning, using the Mill Hill Vocabulary Scale[16] and the Ravens Standard Progressive Matrices;[17] on educational level, using the Drumcondra Criterion Referenced Mathematics Test[18] and a criterion referenced cloze test devised by the Assessment Unit staff to establish reading comprehension.[19]

A Connolly Occupational Interests Questionnaire[20] scale for general vocational preferences is also administered together with Personal Rapid Scaling[21] to establish vocational direction and course interests. Clients have an opportunity to discuss all the courses available to them in Roslyn Park, and are introduced to self-evaluation of their strengths and weaknesses, both generally and in relation to the course.

The second stage involves course sampling. This requires the carrying out by the client of a structured series of tasks which test a person's accuracy, motivation, ability to follow instructions and ability to handle materials as well as revealing possible environmental difficulties in relation to each of the courses in which the client has expressed an interest. The samples are taken in the training environment and supervised by the Instructor of the course so they reflect the content and conditions of training as well as possible. The Instructor rates the client's performance, and the client rates him or herself.

Group and individual exercises provide a view of social skills functioning, while individual counselling assists with value clarification and reality testing options.

Finally, the client develops a vocational plan for the next three or five-year period, showing where the proposed course fits into the plan.

The prior educational attainment of the population referred to earlier is shown in Table 2. These figures must be treated with caution since they indicate prior attainment, and cannot be assumed to equate with current functioning.

Table 2. Educational attainments of client population

Disability	Nil	Group/ Inter Cert	Leaving Cert	Third level	Total
Acq. Physical	3	5	9	1	18
Cong. Physical	4	11	10	0	25
Hearing Imp/Deaf	0	10	8	0	18
PEB	4	9	10	10	33
Epilepsy	2	2	5	1	10
Vis. Imp.	0	1	2	0	3
Other	1	0	0	0	1
Total	14	38	44	12	108
%	13	35.2	40.7	11.1	100

What other services are required?

Needs emerge in a number of different ways. Difficulties of adjustment, of coming to terms with disability, frequently require attention. Problems emerge not only from those who have specific psychiatric disabilities, but also from the backgrounds of alcohol and drug abuse. Instructors, as the primary contact point with trainees have the responsibility of monitoring progress and performance, and alerting the specialist staff. These include a Counsellor, two Psychiatrists, on a part-time basis, and two psychologists. Weekly meetings are held, to which any Instructor can refer a trainee, and at which the action to be taken is agreed.

If it emerges that a person has deficits in the educational prerequisites of a course, the College can provide remediation and support to make up those deficits. In general, some 30 per cent of the applicants require direct educational attention and a further 10 - 15 per cent require social skills intervention at a significant level. The College operates a Compensatory Education Department for this purpose.

Firstly, for very minor problems, a trainee can be withdrawn from the course for two or three hours per week over a short period. Secondly,where specific deficits which would interfere with the person's ability to progress on the course are identified, a Foundation Course full time, for up to three months, can be provided to enable these gaps to be filled. Thirdly, where the educational level is very low, or where there are substantial social deficits, such that the assessment does not provide useful information, a basic Literacy and Numeracy Course is provided for up to nine months, to bring the person to the level where the assessment becomes useful.

All trainees spend one session per week, in a social and personal development course which includes job seeking skills. Counselling and other forms of group and one to one activity may also be used as appropriate, and referral to specialist outside agencies is also possible.

Curriculum design strategies

It will be apparent from the profile of our trainees, and the extent of educational needs that our curriculum must be very flexible in organisation and implementation. Hutchinson (1982)[22] has pointed out the implications for course design of meeting the needs of a disabled population. These include the need for an individually oriented curriculum, providing realistic and attainable goals within a context which encourages the development of realistic aspirations and expectations. The conventional academic year approach has been abandoned in favour of a continuous entry and exit system. Thus a person commences a course when he or she is ready and a place is available, and continues until the course is completed. The duration is not completely open however; most courses are designed as one year, (45 teaching weeks) and normally a person should take not less than nine months or more than 18 months to complete a course.

The system carries with it certain implications. Firstly, it is necessary to keep class sizes small - we provide for a maximum of 12 in any group. Secondly, it is largely inappropriate to undertake group teaching at all, in the conventional way. In a course there might be one or two topics only which would be covered in such a way; for example, in our Draughting course mapping is studied on a group basis, because it necessitates trainees working together.

Thirdly, courses must be designed in a modular fashion, so that it is possible for someone to start a course at the beginning, regardless of when they arrive.

While the general attitude of mainstream educationalists to the handicapped may be one of benign dismissal, the reactions to our system of continuous entry, individualised modular courses is more likely to be a sharp intake of breath followed by sage shaking of heads, and adjectives such as 'impractical' and 'utopian'. To people inextricably caught up in the conventional education scene it may appear so.

Systems of individualised instruction have been the subject of some discussion in the past. Hounsell[23] (1974) discusses the features of such a system, emphasising on the one hand its responsiveness to individual student needs and pace of work, and the change of teacher role to "a managerial one", and on the other the demand which it places on the student to be responsible for his or her own progress. For our clients this is an important issue. Whether they have come to us from hospital, from schools or from other forms of training, the majority will have been in more or less sheltered environments. We seek, from the assessment stage on, to give each person responsibility for their choice of course, for their progress on it, and for their personal development in the vocational sphere. If an individual is to survive in the modern world, he or she must accept that responsibility, learn to identify problems, identify solutions, and evaluate the success or failure of them.

One of the reasons why people come to us is that the conventional education system has been inappropriate for them. It has demanded conformity to a rigid examination based structure, with tight time limitations and a requirement to catch up with the group if time is missed. The College does not believe that those constraints and pressures are either necessary or helpful in our activities. Certainly there are other constraints and other pressures, for example, punctuality, the general timeframe of courses (9-18 months) and the desire of the trainee to complete the course and find work. The difference is that we facilitate each individual to develop, to learn and to acquire new skills for themselves at a pace appropriate to their abilities. One example would be a case which we have to deal with regularly; teaching typewriting to a person who has full use of only one hand. There is no huge problem in training a one-handed typist, it is just that all the manuals are based on two hands, it takes a little longer to achieve a reasonable speed and very high speeds are rare. But put that person into a conventional secretarial course and the chances are that he or she either won't succeed, or will not achieve full potential.

Our Graphic Design course provides an example of our approach. The course is divided into a number of units, each dealing with a particular topic, and each unit has a number of associated projects.

Unit 1	Visual Communications	Project 1 - 2
Unit 2	Typography	Project 3 - 9
Unit 3	Finished Artwork	Project 10 - 13
Unit 4	Presentation Material	Project 14 - 15
Unit 5	Advertising and Marketing	Project 16
Unit 6	T.V. and Video	Project 17 - 18
Unit 7	Photography	Project 19
Unit 8	Illustration	Project 20
Unit 9	Practice and Development	Project 21 or 23
Unit 10	Final Job Preparation	Project 23

Thus for Unit 3 (Finished Artwork) the first project develops mastery in the use of a studio reprographic camera for reductions, enlargements and reversals. The second project requires the production of a paste up of an existing advertisement, using the camera and lettering skills previously acquired in the typography unit. The third project introduces more advanced techniques with the camera, using montage and halftones.

The fourth project develops skills in three colour artwork, including the use of colour overlays, and requires the production of artwork for a poster of the trainee's own design. The final project requires the trainee to design and produce artwork for a business card for him or herself, and the unit finishes with a short test on both theoretical and practical aspects. Each project involves direct instruction, background reading and practical activities, support by handouts and samples. The entire Unit is designed to last for 47 days.[24]

Our colleagues at the Centre de Readaptation, Mulhouse, France have developed a highly sophisticated modular system, based on our approach, but with a much stronger emphasis on self direction.[25] The student negotiates with an individual guidance team the time to be taken to complete each module. Each module is divided into steps with an information pack, containing objectives, tasks to be carried out, reading material, problems and solutions. Back up "workshops" (ateliers) provide additional support, tuition, or opportunities for practice. The duration of courses is flexible in the same way as those in Roslyn Park.

The Heidelberg Centre, in Germany[26] and that at Hoensbroeck, Netherlands[27] have more conventionally structured time constrained and organised courses ranging in duration from 11 to 24 months, depending on level. It is apparent from discussions with staff from those centres that they find at least as many difficulties with their system as we do with ours.

The task of the Roslyn Park College is to provide the best possible vocational rehabilitation service for people of potential. To achieve that goal we are fully prepared to experiment, to try new solutions and new approaches; to continuously evaluate, improve or discard. If Roslyn Park were to have a motto which would ensure the continuation of that flexibility of response to the needs of disabled people it would be "Nothing is written on tablets of stone."

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A PROGRESS REPORT ON THE 1936-86 PROJECT AT SHANNON

Jim Gleeson

This paper falls into two sections - a description of the context and work of the Project followed by a shorter section on the issues which are arising out of the Project as I see things.

1. SECTION ONE

Shannon Curriculum Development Centre does not enjoy any permanent funding. When the Steering Committee of the Centre wishes to initiate a Project, it must first of all seek funding. Such an application will include proposed Project activities. If the application is successful a Project Team is appointed to implement these proposals on an action research basis for a specific number of years.

The 1983/86 Project is one of 30 linked Projects taking place in the Economic Community (EC) countries. It is funded jointly by the EC and the Department of Education. This is the second series of such Projects and the overall aim is the same as during 'Transition 1' (1978-82): to help young people make the transition from school to adult and working life. Great emphasis is placed on the use of a 'district approach'. This is defined as the utilisation of all agencies and adults within the community who have relationships with young people in order to prepare them for transition. This was the rationale behind the idea of Local Liaison Groups/ Networks as developed by SPIRAL. Indeed the SPIRAL Logo succinctly encapsulates the basic underlying philosophy of the district approach and its relevance to education:

the three interlocking circles represent the three agencies of home, school, community. The Spiral Project (1978-82) based at Shannon Curriculum Development Centre was part of the first round of EC Projects.

2. Tasks of the 83/86 Project

The tasks of the Project are:

1. The development of alternative Senior Cycle programmes which will prepare young people to make the transition from school to adult and working life. When she launched the Project in July, 1983 the Minister stated:

   > The main thrust of the (Shannon) Project will be in the development of alternative Senior Cycle programmes leading to national certification ... for students who do not wish to follow existing programmes.

2. To familiarise girls with traditionally non-female occupations.
3. Cursa Ghaeilge a fhorbairt do dhaltai soisearacha ata chun deiridh.

The Project consists of six members most of whom are on secondment from teaching positions until July, 1986.

3. Alternative Senior Cycle Programmes

3.1. The Project is implementing these programmes on a Pilot basis in 20 schools in Munster since September 1984. Arrangements have been made for national certification with the Department of Education. Students will get Senior Certificate (Part 1) at the end of the first year and Senior Certificate at the end of the second year. There are approximately 550 students involved, ranging from average to very weak in terms of academic ability with a tendency in the latter direction. The participating schools break down as follows:

Convent Secondary	10
Mixed Secondary	2
Community/Comprehensive	5
Vocational	2
Boys' Secondary	1

Some 250 teachers are involved, 95 per cent of whom attended Induction Programmes during the Summer of 1984. Each member of the Project Team has visited participating schools twice during the first term and three In-Service Workshops have been held up to now in addition to Seminars on Assessment and Understanding less able students.

3.2. Curriculum

3.2.1. The Project is providing programmes in the following curricular areas at present:

Communication (English, Gaeilge)
Mathematics
Computer Appreciation
Social and Cultural Studies
Applied Science, Technology and Design
Food Science and Agri-Business
Business Education

These programmes will be nationally assessed and certified at the end of each school year. A brief description of each Programme is available on request. The programmes are being developed by the Team in consultation with teachers and out-of-school personnel.

3.2.2. Work Experience is seen by the Project as an essential element of these alternative programmes. This element can be provided either by devoting the equivalent of one day per week over two years to work experience or by providing a Community Based Learning programme for one half year.

3.2.3. The Project has recommended that Senior Certificate should incorporate Entrepreneurship programmes based on the Mini-Company idea. It is intended to include a two week period of work simulation during the second year.

3.2.4. It has also been suggested to participating schools that Outdoor Education provision should be incorporated into Senior Certificate programmes. The Project is assuming that schools will provide for Religious Education and Physical Education in the normal way.

3.3. Implementation at school level

The details of curriculum provision are obviously a matter for each particular school. It has been recommended that schools should adopt the 'cafeteria approach', selecting appropriate programmes from a variety of courses including Leaving Certificate, Senior Certificate, T.S. courses, City & Guilds etc. It is possible to get national certification for an individual Senior Certificate programme. The Project regards the inclusion of work experience as a 'sine qua non'. At the end of each year the student will be given a Record of Experience and Achievement by the school which will attempt to describe the variety of learning experiences which the student has engaged in during the year.

3.4. Underlying philosophy

In keeping with the main aim of the 30 Projects the Senior Certificate programmes are attempting to educate students for life and for work. Along with this broad aim, the Project is attempting to develop the programmes around the following principles:

(a) that learning how to learn is more important than learning a lot of information/knowledge which is quickly forgotten and often of doubtful relevance. There is a heavy emphasis on problem solving techniques and student involvement in research.

(b) the programmes must be interesting, motivational and activity based.

(c) the personal development of the students should be facilitated by providing opportunities for taking responsibility, making decisions, taking risks and initiatives, providing opportunities for working with others. This is what education for entrepreneurship amounts to. Education for personal development must be integral to the whole programme and not confined to a slot on the time-table if it is to be effective. The development of self-esteem is particularly important in the case of students who have been consistently branded as failures by the traditional system.

(d) a commitment to the 'district approach' i.e. use of the out-of-school environment and out-of-school resources, human and otherwise.

(e) As can be seen from the list of programmes the integration of traditionally discrete subject areas is being attempted.

(f) avoidance of sex-typing.

(g) Preparation for Leisure, for active citizenship and for the practical demands of living.

(h) alternative approaches to assessment.

3.5. Assessment

3.5.1. Students will be nationally assessed at the end of each year. For the 1985 assessment, which is being provided by the Department of Education, students will hand up a selection of their year's work with their answer books. In the case of most programmes this 'selection' will have the same weighting as the actual exam. A pro-forma system is being devised whereby each teacher of a Senior Certificate programme is being given the option of submitting a report on his/her students in order 'to inform the mind of the examiner'. The school is being asked for an endorsement that the material in the 'selection' is related to actual practical work undertaken by the candidate. It is intended to report the students' examination results in a manner which is both simple and positive. This might mean that a student would either get a 'Pass' or 'Pass with credit' thus avoiding mention of failure.

3.5.2. As well as the student's examination results, the Record of Personal Experience and Achievement will contain a Record of Experience. This Record will include: details of Certificate programmes followed; details of out-of-school experiences, extra curricular activities and of other programmes followed. The Record of Experience will be completed by the individual school according to a format provided by the Project.

4. Equality of Opportunity for Girls

This is one of the central themes of the 30 EC Transition Projects. The Joint Committee on Women's Rights set up by the Houses of the Oireachtas focussed on Education in its first Interim Report (October 1984). That Report states:

> There should be no further delay in accelerating the movement to eradicate the inequalities between the sexes in our educational system ... the Joint Committee agrees that any fundamental change must be initiated through the educational system.

4.1. Why is this issue important?

(a) There is considerable evidence to suggest that the traditional sources of employment for women are drying up. Between 1980 and 1983 employment prospects in the clerical area diminished by 50 per cent. Teaching and nursing are following similar patterns. The Joint Committee of the Houses of the Oireachtas draws attention (Chapter 8) to "the low representation of females in the various training and apprenticeships courses run by the State sponsored agencies ... At the end of December 1983 there were 108 (registered) female apprentices out of a total of 18,779" - slightly more than .5 per cent!

(b) It is also true that women are found in the lower paid lower status jobs, e.g., while 65 per cent of people working in the Civil Service are female, only 5 per cent are in Executive positions while the vast majority are working as clerk typists. In the light of this situation there is need for change.

(c) The ESRI study reflects the high level of sex-stereotyping that exists with regard to the provision, allocation and choice of subjects in second-level schooling. In addition to the subjects which were looked at in that study, it would appear now that girls are faring poorly in relation to Computer Studies also. The link between school subjects and career options is obvious and does not need to be elaborated on.

(d) This issue is clearly related to the changing nature of modern society and the changing role of women in today's world. Traditionally in Ireland it was the man who thought in terms of a life-long career. In the context of earlier marriage, smaller families, one parent families and marriage break-down that trend is inevitably changing. It is now becoming increasingly important for young women to think in terms of a life-long career.

4.2. What the 83/86 Project has done

4.2.1. During 1983-4 the Project Team developed a Familiarisation Course which was aimed at pre-Intermediate Certificate girls primarily. The aim of this course was: "To heighten the students' awareness of sex-stereotyping in relation to careers and subject choice and to help them re-consider their attitudes as to what is a suitable female occupation". It was also hoped to heighten participating teachers' awareness of the issue. A parent's programme was developed to complement the students' course.

This Familiarisation Course was implemented in 14 schools. Approximately 2,000 students (including males in the case of co-educational schools) and 55 teachers participated.

4.2.2. Evaluation

The over-all response of teachers and students was very positive. There was general agreement that the main outcome was a heightening of awareness on the part of students. It would be very unrealistic to expect such a short course to do any more, particularly in the light of the prevailing influences. Some of the main recommendations of the internal evaluation of this Course include:

- that more attention should be given to the broader issues of sex roles at Senior Cycle.
- that there is no point in trying to educate girls in relation to this issue unless a course is also developed for boys (the other 50 per cent). The 'taboo on tenderness' in boys' schools is an aspect of the problem which is in need of considerable attention.

4.3. Plans for 1984-5 school year

The project set itself three goals for 1984-5 in relation to this issue:

(a) to implement school programmes.

(b) to invite schools to engage in reviewing their policies on sex-typing and equality of opportunity for girls.

(c) to involve out-of-school agencies in helping schools to work towards greater equality for girls.

4.3.1. Two programmes are being implemented at school level during 1984-5. The Familiarisation Course has been revised in the light of evaluation for use at Junior Cycle level to deal with two issues - career choice and subject choice. A new programme is being piloted at Senior Cycle level called 'Sex Roles and Equality of Opportunity'. The main emphasis in this course is on the raising of students' awareness of sex-stereotyped attitudes as expressed in society in general.

4.3.2. Policy review

Some six schools (single sex and co-educational) have been invited by the Project to engage in a review of their policy with reference to sex-typing and equality of opportunity for girls.

We are suggesting to these schools that they might examine issues such as

- text-books in use; curriculum materials in general
- subject provision and allocation including timetabling (both examination subjects and also a non-examination subject such as P.E.)
- careers advice and materials in use
- the 'hidden curriculum' including the attitudes unwittingly transferred by teachers
- placement on work experience
- the need for co-education; co-education in practice
- is there a need for an equal opportunities policy in this school?

4.3.3. Involvement of out-of-school agencies

A joint initiative is being worked out with AnCO at present in relation to equality of opportunity for girls. This initiative has three aspects to it:

(i) We have requested AnCO to organise a three day attitude development programme for a group made up of teachers and AnCO instructors.

(ii) We have requested AnCO to provide a six week training programme for a limited number of school-going girls at a local training Centre during the Summer.

(iii) AnCO and the Curriculum Development Centre are planning a joint venture in producing learning materials.

5. An Tionscadal faoi mhúineadh na Gaeilge do dhaltaí atá chun deiridh

Tá an cúrsa bunaithe ar an méid is lu den teanga atá riachtanach (i dtuairim na múinteoirí) chun go bhféadfadh an dalta é/í féin a chur in iúl trí mhéan na Gaeilge. Seo leanas na cinnteidil atá mar bhunús leis an gcúrsa: Beannú; Mé féin; Is/Ní maith, Is fearr, cén fáth; Úinéireacht; Treoanna; An t-Am; Laethanta na Seachtaine; Praghsanna; Tairiscint a dhéanamh agus a ghlacadh; Cur síos ar rud éigin a tharla san am atá thart agus cur síos ar rudaí a tharlóidh san am atá le teacht; Na mothucháin; Eolas faoi theaghlach an dalta féin; Abair/Inis, Fiafraigh de/iarr air. Tá acmhainní idir téip agus cartúin ag gabháil le gach Aonad.

Ta idirbheartaíocht idir an rang agus an scoil agus idir an rang agus an pobal áitiúil mar chuid tábhachtach den chúrsa. Déantar iarracht na daltaí a spreagadh chun a gcuid Gaeilge a úsáid lasmuigh den rang agus le suim a chur i ngnéithe éagsúla den chultúr.

Tá an Cúrsa á mhúineadh in ocht scoil déag agus tá tuairim is 450 dalta páirteach. Tá an dream seo sa dara bhliain anois. Cuirfidh an Roinn Oideachais scrúdú malartach don Mheánteistiméirieacht agus don Ghrúpa Theastas ar fáil do na daltaí atá páirteach sa tionscadal. Níl cruth an scrúdaithe socraithe fós ach tá córas measúnaithe á fhorbairt againn faoi láthair. Beidh an bhéim ar chaint agus ar éisteacht sa scrúdú.

SECTION TWO

Main issues arising to date

The responses of participating students and teachers to Senior Certificate have, in the main, been quite favourable. Time does not permit me to elaborate on the many positive outcomes now. In my opinion a number of central issues have emerged in the first 1½ years of the Project and I propose to examine these in some detail.

A. Curriculum development and design

(i) Style of curriculum development

The main task of the Project is the development of alternative two year programmes at Senior Cycle level. Within the context of a three year Project the natural inclination was to be fairly prescriptive. A strategy which allowed for greater flexibility and for a more school-based approach would have been preferable from the point of view of teacher development. Such an approach would have given rise to a number of practical problems:

- in our experience most teachers simply cannot find adequate time to devote to school-based curriculum development while continuing to carry a normal teaching load;
- it would hardly be responsible to leave the students in a situation where there was no worthwhile programme to follow;
- from the point of view of public accountability such an approach would constitute a considerable risk;

- a school-based approach would have presented considerable problems from the point of view of national assessment and certification and from the point of view of recognition/ acceptability of Senior Certificate.

On the debit side, the disadvantages of our adopted approach include:

- a tendency for Senior Certificate to be perceived by some as the replacement of one syllabus by another in the traditional sense;
- a certain lack of flexibility in some of the programmes which have been developed.

(ii) Use of existing courses:

We have experienced some difficulty in striking a proper balance with regard to the allocation of Project Team time to action on the one hand and to research on the other hand. By making greater use of existing courses we could have freed Project Team members to devote more time to further research.

(iii) Needs-based versus subjects-based approach

It has to be recognised that teachers who have been trained and employed to teach subjects will experience difficulty in adopting an alternative approach. Even in the context of the integrated programmes being developed by the Project Team it is proving difficult - both for the curriculum developers and for the teachers - to adopt a needs-based approach. The experts tell us that students who experience learning difficulties - our target group - cannot be adequately catered for by a subjects-based approach. If the Project simply develops a new set of subjects it will hardly have succeeded in responding adequately to the needs of students who are preparing to make the transition from school to adult and working life.

Mention of the need to provide for the needs of students who experience learning difficulties in a special way raises the issue of 'stigma'. The special needs of these students are recognised at Junior Cycle in the form of the provision of remedial teachers. Now that increasingly large numbers of such students are remaining on at school at the post-compulsory stage, it is only reasonable to argue that special provision is called for at Senior Cycle. This provision must be based on the needs of students: the inherent logic of the discipline does not work for the target group in question. My own sensitivity to the issue of 'stigma' was quite high at the beginning of the Project: now that I have come to know the participating students somewhat this issue does not concern me as much.

(iv) Curriculum Design

The Project is now at the stage where it is possible to recognise some of our mistakes. The overall learning experience proposed by the Project Team led to the involvement of an inordinately high number (10-16) of teachers in Senior Certificate during the first year, e.g. we were suggesting that three of the integrated programmes should each be taught by two teachers. We are now questioning the wisdom of this approach for a number of reasons:

(a) students with learning difficulties respond best to a small number of suitably skilled teachers;

(b) the involvement of a large number of teachers leads to fragmentation of the learning experience for the students;

(c) effective communications are not possible, even between teachers involved in the same programme/course, when the teaching team is too big.

On the other hand, the Project has succeeded in actively involving a significant number of teachers in participating schools in curriculum development - up to 50 per cent of the staff in some cases. This high level of involvement has meant that the sort of 'backlash effect' often associated with curriculum development Projects in schools has not arisen in this case.

In response to the problem of fragmentation identified above, the Project Team has made a number of proposals for Year 2 (1985-6) of Senior Certificate. These include:

- a proposal to reduce drastically the size of the teaching team in the schools to as little as four if possible.
- a proposal to make 'Preparation for Working Life' the focus of the students' learning experience and to ensure that the various programmes are related to work experience, work simulation and to each other.

B. The mixed-ability problem

There is a significant mixed-ability problem within our cohort of participating students. This is evident from an analysis of both their achievement at Intermediate Certificate level and of their work. This raises a number of problems:

- difficulties with the readability level of resource materials for some students;
- some students have experienced great difficulty in effectively using resources which they are able to read;
- difficulties for many students with the idea of 'design' in relation to the Applied Science, Technology and Design programmes;
- both students and teachers seem to experience some difficulty with using non-written forms of communication effectively;
- the most basic problem is one of methodology: 'class teaching' will not work in a mixed-ability situation and group teaching is quite a specialised skill.

Problems have also been experienced in two other related areas:

(i) Quite a high percentage of participating students who are now engaged in Senior Certificate Programmes which involve disciplines such as Science, Home Economics and other practical subjects have not studied these subjects up to Intermediate/Group Certificate level.

(ii) Topics which would appear to be quite relevant to the students' needs as perceived by teachers and the Project Team are not necessarily perceived as important by the students, e.g. acquiring a house; understanding Income Tax; projects in Technology which enthused the teachers have left the students cold.

C. The management of curriculum innovation

On the basis of our experience to date, I am satisfied that making adequate provision for students who experience learning difficulties is not simply a matter of developing alternative curricula - it is very much a matter of school management also. As a Project we are working with school principals and vice-principals and attempting to help them to take the steps which are, in our opinion, necessary if the Senior Certificate learning experience is to make an impact on the system. We have suggested to school principals that they should facilitate Senior Certificate provision in a number of ways:

(i) By allocating suitable, capable and understanding *teachers* to the classes in question. In view of the mixed ability problem within this target group it is important that such teachers are prepared to use appropriate *methodologies* which may be non-traditional: group and individual teaching is a particularly important strategy in this context.

(ii) By ensuring that the participating teachers are identified in a way which is conducive to good curriculum development. The process of *identifying the teaching team* is crucially important to the success of the innovation in the school and to the development of a school climate which is well disposed towards curriculum change.

(iii) By making appropriate time-tabling arrangements. The proposal for Year 2 of Senior Certificate suggests that a small team of teachers can work most effectively with the class. The time-table should also facilitate communications between the members of this team with the assistance of the co-ordinator.

(iv) By enabling the participating teachers to avail of the In-Service courses provided.

(v) By making appropriate resources and accommodation available for the class groups in question within existing constraints.

(vi) By enabling maximum use of the out-of-school environment.

(vii) By the provision of an effective guidance service for those students who are about to leave school.

D. Assessment

(i) Given the nature of our target group it is highly desirable that a system of continuous assessment should operate in relation to Senior Certificate, particularly in the case of practical activities. While the Department of Education is prepared to recognise and monitor school-based assessment it is not prepared to pay teachers for their involvement. As a result our assessment procedures for Year 1 constitute what can be described as "an Irish solution to an Irish problem".

(ii) While the pre-prepared section of the Senior Certificate (Part 1) examination will carry the same weighting as the written end-of-year examination, there is some evidence to suggest that teachers are beginning to teach, yet again, for the examination.

(iii) The recognition of Senior Certificate raises the question of 'stigma' again. One way to achieve respectability for the certification is to seek recognition of Senior Certificate from N.C.E.A. and from State/semi-State Bodies as being in some way equivalent to Leaving Certificate. This will lead immediately to a concern with academic respectability and to a raising of standards in the traditional sense. This will, in turn, most likely lead to the neglect of the very students whose needs in terms of preparation for transition from school to adult and working life are greatest.

Some of the problems can be overcome by building in a 'Pass with Credit' level which is sufficiently discriminating for selection purposes. Another alternative is to approach these programmes as strategies for motivating the unmotivated and to suggest that students who have been successfully re-motivated should re-enter the traditional system if they aspire to certain jobs/colleges.

E. The Broader Context

(i) The Vocational Preparation and Training Programmes (VPTP) have been introduced to secondary schools,with European Social Fund support, since the Shannon Project began. This development has impinged on the Project in a number of ways:

- The majority of participating schools/ students are in receipt of the E.S.F. grant.
- Schools which are providing V.P.T.P. but are not participating in our Project are in need of appropriate courses. The Senior Certificate and V.P.T.P. aims and target groups are rather similar. There is an expectation that the 1983-86 Project will help to fill the lacunae which exist.
- While certification is being provided by the Department of Education, the Curriculum and Examinations Board are naturally interested in the work of the Project also.

F. Equality of opportunity for girls

While students are a prime target in this regard, the attitudes of school administrators, teachers, parents, instructors, employers and society at large need to be tackled if classroom programmes are to be effective in the long run.

If one is to judge by the unenthusiastic response of schools to the invitation issued by the Project Team to become involved in policy review or by their disappointing attendance at Department of Education Seminars and the Project's Conference on 'Equality of opportunity for girls', one can conclude that this issue does not rate as a priority with them. At the end of the day, the effectiveness of the work being done by the Project in this regard will depend on the level to which awareness-raising has been successful.

Concluding remarks

The Project is now engaged in attempting to respond to the issues which have been identified above. The ensuing developments may well form the basis for a further paper in the future.

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THE NORTHERN IRELAND YOUTH TRAINING PROGRAMME : ASPECTS OF PRACTICE, ASSESSMENT, GUIDANCE, COUNSELLING AND NEGOTIATION

Jean Whyte

THE NORTHERN IRELAND YOUTH TRAINING PROGRAMME : SOME OUTCOMES

Rosemary Kilpatrick

GENERAL INTRODUCTION

These papers arise from a research project currently being undertaken at the Northern Ireland Council for Educational Research entitled "Young People in the Youth Training Programme". An account of the early stages of the project may be found in Irish Educational Studies, 1984, vol. 2, and a final report on the project should be available by the end of 1985.

The Youth Training Programme in Northern Ireland was initiated in September 1982. Among its aims was that of providing a guaranteed year of education, training and work experience for 16 year-old school leavers. The NICER project is focussed on this group and the curriculum offered to it in 1983-84.

There were four main providers in the Youth Training Programme. Providers offered a variety of schemes and within each scheme a number of courses. Young people were guided in their choice of scheme by careers officers at the beginning of the year and their progress was monitored so that, if necessary, adjustments could be made in line with their needs. The providers were as follows:

Government Training Centres

GTCs offered broad based vocational training for six months followed by the opportunity to specialise in a skill for a further six months at apprenticeship or advanced vocational level.

Community Workshops

(Also known as Work Preparation Units or WPUs). These also offered broad-based training in community-based centres, less formally structured than GTCs. Specialisation was possible but would-be apprentices transferred to GTCs.

Colleges of Further Education

These offered a range of full-time 12 month courses, some broad based, some more specialised, such as catering or commercial courses. They also offered courses for special groups such as the less motivated and the less able.

Employers

participating in Employer-Based Schemes (EBS) drew up a training programme for one or more young people who joined them for periods of three months to a year. These placements were monitored by the Department of Economic Development.

All trainees, regardless of schemes, received an allowance of £25 per week. All the courses included the three elements of:

i) vocational skills training - usually at the centre to which the trainee was attached;
ii) education - usually at the nearest College of Further Education;
iii) work experience - arranged by the centre with an employer for a period of up to 13 weeks in the year.

Whyte's paper considered aspects of practice in the Youth Training Programme concerned with one of the themes which appeared from the policy documents to underlie the thinking behind the programme - that of matching provision to the needs of the young people. The means by which this was to be accomplished included assessment, guidance, counselling, negotiation and the use of profiling. This paper described the provision of structures designed to enable such matching to take place and examined the effectiveness of the procedures as they appeared to participants in 1983-84.

Kilpatrick's paper considered the product or end result of the guaranteed year of the programme in terms of the improvements in basic skills, the levels of interest and enjoyment reported by trainees and their destinations at the end of the year.

Irish Educational Studies, Vol. 5, No. 1, 1985

THE NORTHERN IRELAND YOUTH TRAINING PROGRAMME : ASPECTS OF PRACTICE, ASSESSMENT, GUIDANCE, COUNSELLING AND NEGOTIATION

Jean Whyte

INTRODUCTION

The YTP Plan for 1983-84 stressed the importance of negotiation and counselling in training programmes developed for young people. The NICER research project investigated the implementation of these aspects of the programme and the attitude of the participants towards them by means of questionnaires administered to over 900 young people and some of their tutors, instructors and supervisors. The findings will be presented in this paper in two main sections:

(a) management negotiation, or the existence and utilisation of structures which facilitate the coordination of different elements of the programme;

(b) supportive negotiation at the teaching/learning interface between the tutors, instructors and learners, including the use of profiling.

BACKGROUND

In the document issued in 1982 by the DENI and DMS (later DED), A Comprehensive Youth Training Programme for Northern Ireland, it was stated that: "All young people in this age group need . . . . in varying degrees appropriate knowledge, skills and experience together with counselling and guidance to enable them to adapt to the world of work". This aspect of training and education for the 16 - 19 year-old age group is also recognised as essential in publications from the European Community on developments in the field and in the publications of such bodies as the Further Education Curriculum Review Unit of the Department of Education and Science and the Manpower Services Commission in Britain.

Negotiation, guidance, counselling and appraisal are aspects of the same process - that of assisting young people to become responsible for their own development and of helping them to understand that what they gain from the programme is as much their own responsibility as that of the trainers. Guidance helps trainees to match the options available to their needs and it should take place at an early stage if the nature of the learning planned during the preliminary and induction phases of the training is to satisfy the learning needs of the trainees. Sympathetic counselling and support before and during the course will help the trainees to take account of the progress made in meeting their needs as the course proceeds. Appraisal will assess the degree of progress achieved. Negotiation may take place at any stage and may lead to modifications in the programme, or compromise in the demands of the trainees.

Support for the counselling process was to be provided through profiling, as described in the January 1982 document. The City and Guilds of London Institute profiling system was introduced in Northern Ireland in 1982 with the aim of providing a record of the vocational development of each trainee over a wide range of basic skills. The process is based on a log book or diary which is kept by each trainee, but the most important aspect of profiling according to the Plan for 1983/84 is: "the regular and meaningful discussion which takes place between trainee and trainer during regular review sessions".

Negotiation in another sense and on another level must take place in the preparatory phases before the young person makes his application and while the possible options in the local situation are being planned. A college of further education would negotiate in this sense with an employer or a government training centre or a community workshop in order to provide a curriculum for the young people with co-ordinated access to different elements in different settings. This initial negotiation process is central to the Youth Training Programme for it determines the curriculum which may be offered by providers and the extent to which flexibility may be built into the curriculum. This process establishes the basis on which negotiation with the trainees may take place.

THEME OF THE PAPER

As part of the NICER research project on "Young People in the Youth Training Programme" an examination was carried out of the elements of negotiation, guidance counselling and appraisal as they featured in each of the main four phrases of the programme for young people - the pre-placement phase, the placement phase, the induction phase and the training phase. The questions of interest in each phase were as follows:

(i) what is the purpose of negotiation, guidance, counselling and appraisal during this phase?
(ii) by what means is the process facilitated?
(iii) is the process availed of by trainees and trainers?
(iv) is it judged to be effective by trainees and trainers?

Contact was established with participants in the Youth Training Programme at every level in the course of the project and questions on the topic under discussion were asked of providers (managers, principals, employers), careers officers, tutors, instructors, supervisors and trainees.

A THE PRE-PLACEMENT PHASE

a) Negotiation for the education element

Trainees of GTC, WPU and EBS schemes spent one day per week or its equivalent in the nearest College of Further Education where instruction was given to complement the experiences provided by other elements of the course. Coordination between providers of other schemes and the further education colleges, and between members of staff in the further education colleges for their own full-time students, would seem desirable if complementarity is to occur. One might expect the development of a communications network between providers to which careers officers had access and through which they could report back on mismatches experienced by the trainees and perhaps initiate discussions to produce change. Such a network existed in the local liaison committees which met in each area during 1983/84.

Attendance at a number of these committees revealed that complementarity and quality of training and education were not among their primary concerns. Enquiries were made in an effort to establish whether consultation on these topics took place outside the committees but more than one-third of all the providers interviewed responded that there had been no immediate consultation by the local Further Education College about the education element for their trainees. Since it was possible that careers officers might provide the necessary liaison between providers, further enquiries were made but it was found that only about 50% of careers officers had regular contact with scheme providers at management level. Colleges appeared to take unilateral decisions in many cases, although these were often based on the general recommendations of the DENI/DED or of the other working parties representing all the interests concerned.

b) Negotiation for the work experience element

Negotiation at management level is also important for the work experience element. It might for example be desirable to provide certain types of experience for particular trainees and to have specific programmes drawn up for them with employers. In practice, negotiation on this element was confined to the availability of placements. These were so difficult to obtain in certain areas of the province that some Community Workshops in the sample were in fact unable to provide this element for their trainees in 1983-84. This fact inevitably had an effect on the kinds of negotiation possible in this area at management level and also at trainee level.

c) Contacts between trainers

Contact between members of staff in individual schemes varied considerably. Most people had opportunities for informal contact; social and lifeskills tutors were the most likely to have direct formal contact with other tutors, instructors and supervisors; employers had least opportunity for meeting with other adults concerned with their trainees. The majority of staff on every scheme appeared to have no contact with anyone outside their own centre. Careers officers might have been expected to provide a link here, but only 2% of social and life-skills tutors and no vocational skills tutor in the study had made this contact, while twenty-nine percent of the careers officers whom we interviewed said they talked to individual members of staff on schemes. These percentages appear somewhat low and must make meaningful negotiation difficult if not impossible. The informal contact mentioned by many of the staff was undoubtedly important in maintaining relationships, but was hardly adequate for the planning and coordination of a curriculum.

d) Problems in achieving coordination of effort

The difficulties of establishing structures to enable coordination to develop and the urgency of doing so may be seen from the fact that each trainee was in contact with an average of between 2 and 6 adults within his or her main centre of activities, and also with between 2 and 22 tutors or lecturers at the College of Further Education in the course of the guaranteed year. This problem was recognised by staff and management in their comments on the Youth Training Programme as a whole. Among the points made by them on this aspect of provision were the following:

- not enough contact	WPU managers
- not enough attention to policy formation	
- work experience needs to be better coordinated and linked to trainees' interests	GTC managers
better coordination required between various agencies involved	Employers
- more monitoring necessary	

- need for coordination in course structure	Tutors, instructors, supervisors
- help needed in negotiating with other agencies	
- help needed in working with other staff	
- role of careers officer should be clarified	FE principals
- progression within YTP needs attention	

B THE PLACEMENT PHASE

a) Aims

Guidance and counselling during the placement phase has the objective of achieving a good match between the aspirations and abilities of the young person on the one hand and the training opportunities offered to him or her on the other. Negotiation may also play a part if it is possible to offer a choice of schemes to the young person, or if the young person is unwilling to accept the scheme first offered to him or her.

b) Procedures involved in negotiation and guidance

This phase is centred on the placement interview with the careers officer, but the groundwork is frequently accomplished at an earlier stage. while the young people are still at school. They are visited by careers officers and given information by them and also by careers teachers about the options available. In an attempt to establish the base from which the careers officer would start to provide guidance the study enquired into the extent of the information given to the young people, the number of options they had considered, and the attitudes of their parents.

c) Sources of information : options

Most of the trainees had heard about YTP through the Jobmarket, or from the careers officer, though some had heard from friends or at school. Parents and careers teachers appeared to hold positive attitudes towards YTP. The trainees in the sample were more likely to have received information about YTP than about the other options open to them at 16 which were to return to school or take a full-time course in the college of further education. While it may appear that young people were not being offered a choice between YTP and other possibilities, it was clear from other data that few were adequately qualified to return to full-time education in school and this did not therefore represent a valid option for most of the subjects in the study. In addition, the majority had very negative attitudes towards school; this meant that they were not favourably disposed towards full-time courses in the Further Education Colleges which to them resembled school. The choice they had in real terms was in most cases between unemployment and YTP.

d) Perceptions of trainees' needs

Most careers officers saw young people's needs in terms of specific vocational skills, though the need mentioned by the second highest number of careers officers was "training in social skills and personal development". Since almost all of the schemes offered training in specific vocational skills and all included elements of social skills training, the decision to suggest one scheme rather than another, or to select one scheme rather than another must have depended on less generalised perceptions, which were not accessible to the researchers. It may have been influenced by the young people's stated reasons for wanting to join YTP. The young people had both positive and passive reasons for applying to join YTP (Table 1). For most groups these reasons were fairly evenly balanced, though some inclined towards the more passive and others towards the more positive end of the scale. Positive reasons included "training in job skills", "experience with work", passive reasons included "getting out of the house", "getting off the street".

TABLE 1

REASONS FOR CHOOSING YTP RATHER THAN
REMAINING UNEMPLOYED (IN PERCENTAGES)

	GTC	EBS	FE	WPU
Wanted training	28	9	14	7
Wanted experience of work	8	36	11	20
Takes you off streets/ out of house	21	19	25	19
Bored on dole	8	13	19	18
Money better	16	11	12	23
Miscellaneous	19	12	19	13

e) Placement success

The majority of trainees were happy with the information they had received about their schemes before they applied to join. Although 17% of GTC trainees and 15%

of EBS trainees were not happy, the guidance process appears to have been largely successful during this phase since only about 16% of the trainees were not in the scheme of their first choice when first interviewed for this study. The three main reasons why this was so were that there were no vacancies, a transfer had been arranged because the trainee was unhappy in his or her first choice, or the specific training required was not available in the scheme of first choice.

f) Considerations influencing placement

While ideally, application to schemes should have been based on the perception of the trainees' needs, motivation, and employment aspirations, and while these may play some part in the selection of schemes by and for young people, other, different considerations emerged as being relevant in this context. Careers officers felt in fact that closeness at home and having friends already on a scheme were important factors in helping young people to decide on their training course. When the young people were asked to state their main reason for applying to the course they were on, that given in the majority of cases supported the impression of the careers officers - it was because it was close to home. This was the case in particular for Community Workshops and Youthways schemes in which over 75% of trainees lived within 3 miles of the training centre. GTC and EBS trainees tended to be prepared to travel further. The careers officers' impressions of the importance of friends were also supported by information from the trainees themselves.

In the placement phase it would appear that the outcomes to the guidance and negotiation were generally positive, that the structures were availed of, but that factors other than those directly relevant to the perceived and stated needs of the young people played a major role in the decision on choice of scheme and centre.

C THE INDUCTION PHASE

a) Aims of guidance

Guidance and negotiation during this phase are related to the programme followed by the trainee when he or she starts in the scheme which has been selected. It should be based on a foundation of information by the trainer about the trainee, so that appropriate choices may be offered, and by the trainee about the skills and activities available in the centre, so that he or she can make a suitable decision.

b) Assessment procedures

Managers and principals were asked whether they had received any information about applicants prior to their arrival and it was found that no information was received by nineteen of the twenty-three mainstream schemes or by employers in EBS. They all interviewed applicants, indeed some preferred to obtain the information they required in that way. Only GTCs had standardised interview schedules, and some testing of basic attainments was carried out by seven of the twenty-three centres. Interviews were depended on as a means of eliciting interests and personal qualities, and some managers said that they preferred not to have information in advance so that the applicants could have a completely fresh start - they were aware that many had suffered failure in school.

c) Consultation with trainees

Over 87% of trainees had been asked which vocational skills they would like to learn upon joining their centres. There did not seem to be much discussion of their choice with members of staff however; they were more likely to discuss it with parents or friends. Community Workshop trainees were the most likely to discuss such matters with staff. Only a minority of trainees had drawn up a written plan of their goals and objectives before beginning their course.

While a majority of trainees had been offered a choice in the work-skills aspect of their course, this was not the case for the education element. Under 50% of trainees from all schemes were allowed any say in even a small area of the education element, and GTC trainees were not given any say at all. On the other hand, over 70% of trainees, other than GTC trainees, had been given some say in choosing their work experience. GTC trainees again fared less well here, with fewer than 33% having this opportunity.

d) Structures within centres

The organisation and size of groups varied from scheme to scheme as did the length of time allowed for sampling skills and the amount of specialisation permitted. Community Workshops were the most flexible of all these counts in that changes could be made more easily if a young person changed his or her mind about his or her programme requirements in a Community Workshop than in any other setting. More trainees in the Community Workshops, and on Employer Based Schemes than those in other schemes reported that they were treated like adults.

e) Attitudes of staff and trainees towards procedures

Staff varied in their attitude towards negotiation. More social and lifeskills tutors than vocational tutors said that they negotiated with trainees on aspects of the curriculum. Of course their curriculum was in most instances more flexible than that of their more vocational colleagues, but Community Workshop supervisors were more likely than any other group of vocational skills teachers to adopt this procedure, even in the areas of specific vocational skills. Negotiation centred on the content of the course, on project work, and sometimes also on rules and regulations and the duration of different activities.

Trainees felt that there was not enough consultation. In their comments on the Youth Training Programme overall, they were asked to state changes which would have made their year in YTP better for them and a plea was made for better staff-trainee relationships, for being treated more like adults. Some of the adults also recognised this need and suggested that more opportunities for consulting with the young people should be built into the system and more account taken of their views.

D THE TRAINING PHASE

a) Discussion of progress

In an attempt to ascertain whether guidance and counselling had been available to them in the course of their training, trainees were asked if they had discussed their progress at the centre, at the FE College and on work experience with anybody during the year. Parents and friends were mentioned most often, though course tutors in the FE Colleges were mentioned by their own trainees. Those least likely to discuss their progress with anyone were GTC trainees, and the majority of those not visited by anyone while they were on work experience were also from the Government Training Centres. Careers officers visit each trainee a minimum of five times during the year, but apart from being useful to trainees on Employer-Based Schemes they were not mentioned by trainees as being an important source of advice and support, nor was their place taken apparently by other adults in the various centres.

b) Solving problems

A measure of the lack of support available to some trainees may be gauged from the finding that fewer than half of those trainees who experienced problems during their skills training, education and work experience succeeded in solving them (Table 2). The GTC trainees fared worst of all in all three settings. In fact, Government Training Centres did not provide facilities for counselling though instructors sometimes undertook it with some reluctance. Community Workshops felt in many instances that they needed a full-time professional counsellor to help with the problems of their trainees.

TABLE 2

PROBLEMS EXPERIENCED AND PROBLEMS SOLVED

	GTC	PE	WPU	EBS
Problems in centre	28	27	32	26
% Solved	46	50	60	58
Problems in F.E.	23	19	15	15
% Solved	27	44	36	31
Problems on work experiences	22	19	22	15
% solved	30	46	60	75

Facilities in FE Colleges varied, with some colleges providing an adequate service, but others totally lacking facilities. Employers tended to shy away from personal counselling and to rely on the careers officers.

c) Sources of support and advice

Such advice as was offered to the trainees appeared to come mainly from other employees while they were on work experience and to be related to such topics as health and safety at work, job seeking and personal and educational matters. Social and lifeskills tutors also covered important areas such as job application, communication and interpersonal skills and health education. Careers officers, when they visited the centres, also discussed progress, encouraged applications for jobs and offered help with any problems.

d) Appraisal : profiling

Assessment of progress, or appraisal, is usually achieved through examination performance. Over 50% of the trainees in the sample had, however, left school without any formal qualifications. About two-thirds of those in Further Education College schemes and in Employer-Based Schemes were expected to take examinations, usually part qualifications, at the end of the year. Around a quarter of those in Community Workshops and GTCs were in this position.

Monitoring of progress was achieved partly through direct observation by tutors, instructors and supervisors, and the feedback sought by them from trainees. Not all tutors felt that they were competent in assessing progress although support was given to this process by the Profiles developed by the City and Guilds of London Institute. Trainees completed a log or diary every day in some cases or at intervals of up to one week in others. A review was carried out with a number of staff every four weeks or so, and the results entered on a progress profile. Positive comments only were allowed. Over 53% of all trainees said that their progress was mainly assessed in this way.

There were some drawbacks to the use of the system however. Details of further experiences were not entered in their logs by around 50% of trainees from two types of scheme; details of work experience were not entered by 25% of all trainees and the profiles of 33% were not reviewed during the work experience placement. Trainees had more positive attitudes towards the reviews than towards the daily logs and they perceived their tutors' attitudes as being positive.

Adults mentioned both advantages and disadvantages in the use of profiles. On the whole they saw more advantages than drawbacks in them for trainees, and more disadvantages than advantages in profiles from their own point of view. The main drawbacks were the time needed to complete the paperwork and the basic content of the measure - some thought that their own methods of appraisal were better designed.

Negotiation, guidance, counselling and appraisal during the training phase appeared therefore to be going fairly well in some respects. The structures were there in the profiling system, though it was not being used as fully as it might have been. This was partly at least due to lack of preparation on the part of staff. Staff on all schemes felt that they needed help in developing their expertise in counselling and guidance. The profiling system was not perceived as meeting the need for guidance and counselling, although it had been introduced with this objective in mind. It certainly seemed to contain within it the possibility of serving that purpose.

SUMMARY

1 In the pre-placement phase of YTP, there existed the need for a network of communication which would provide structures through which negotiation could take place and facilitate flexibility in provision so that individual needs could be met. The means to effect this network existed in the local liaison committees but they were not fulfilling this function. Negotiation between providers was rare at every level. Social and life-skills tutors from FE colleges seemed to have most contact with other training staff. Providers were not happy in general with the level of contact and negotiation in this phase.

2 In the placement phase the aim was to match the needs of the young person with existing provision. This was accomplished through the placement interview with the careers officer when there was an exchange of information but no formal assessment procedures took place. It seemed that there were some weaknesses here, but the majority of trainees were placed in the scheme of their first choice. This may not always have been for the right reasons.

3 In the induction phase the aim was to help the young person select skills to be sampled and skills to be learnt, based on an assessment of his or her needs. The assessment was mainly by interview; training staff were not often involved in discussions of choices and progress; a written plan was drawn up in only a minority of cases. Trainees felt that consultation could be better; in fact it was non-existent in certain areas of the curriculum especially for some groups.

4 In the training phase the aim was to ensure continuous support for the trainee, and help in deciding about future progress. This was to be achieved through discussion with staff, careers officers, and profiling; but some trainees encountered problems which they were not helped to solve. Profiling was seen as useful by trainees, but was not fulfilling all the aims it had been designed to meet; this may have been because of lack of training for staff, many of whom felt unprepared to undertake guidance and counselling.

5 This paper has concentrated on negotiation, guidance, counselling and appraisal as an area of concern in itself. Of course, this area is only important when viewed in the context of the Youth Training Programme as a whole. It would appear that the provision of support under these headings was largely inadequate, but that trainees by

and large seemed to be happy with the placement they had accepted. The results of the follow-up survey which should be available next year will reveal the extent to which this feeling was justified.

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THE NORTHERN IRELAND YOUTH TRAINING PROGRAMME : SOME OUTCOMES

Rosemary Kilpatrick

This paper will consider the product or end result of the young person's time on the Youth Training Programme. This involves looking at three aspects of the data which we felt you would find particularly interesting, these being:

1 Improvement in basic skills : what skills did the trainees feel they had been helped in most during their time on YTP and did scheme attended make any difference here?
2 Interest levels and enjoyment : what aspects of the curriculum did the trainees find of most use, interest and enjoyment? Did interest and enjoyment vary according to scheme attended?
3 Destination of the young people : did the trainees remain for the complete year on YTP and if not where did they go? Was their destination related in any way to background characteristics?

IMPROVEMENTS IN BASIC SKILLS

The first aim of the YTP as outlined in the government document "The Comprehensive Programme" (1982) is that it should: "Help young people to acquire a range of basic skills relevant to adult working life". Unfortunately, basic skills are not defined in any detail in the document. However the Further Education Unit publication, "Basic Skills", identified a list of 17 skills or areas which we felt would be the most important and relevant to the young people. These skills can be divided into those concerned with personal development and those concerned with employment as follows:

Personal Development	Employment
making new friends	learning new work skills
getting to know your strengths and weaknesses	increasing chances of employment
growing up	preparing for the world of work
learning about leisure time	getting on with people in authority
inproving self-confidence	understanding society
making you more independent	improving reading and writing skills
solving problems	using the computer
making decisions	working with hands
	working with people

Trainees were asked in the third questionnaire in June to indicate whether they felt they had been helped "a lot", "a little" or "not at all" by the Youth Training Programme in each of these skills. The top three ranked skills encompassed six of the seventeen listed. When we examined these by scheme it transpired that two of the top three were specific vocational skills and the third was an interpersonal skill for trainees on all schemes.

When we looked at the skills on which it was felt that there had been little improvement the lowest three were reading and writing skills, using the computer and learning about leisure time. These were similar for all schemes and there was little difference between the percentages for each scheme.

We then went on to examine the percentages of

TABLE 1

RANKING OF IMPROVEMENTS IN BASIC SKILLS BY SCHEME

1,2,3 = top three 15,16,17 = lowest three

Skills	GTC	FE	WPU	EBS
Making new friends	3	2		2
Getting to know own strengths and weaknesses				
Growing up				
Working with hands	1		2	3
Improved self-confidence				
More independent				
Working with people		1	1	1
Solving problems				
Making decisions				
Learning new work-skills	2	3	3	
Increasing chances of employment				
Preparing for the world of work				3
Getting on with people in authority				3
Understanding society				
Improving reading and writing skills	17	17	16	16
Using the computer	15	16	17	17
Learning about leisure time	16	15	15	15

trainees who said that they had improved "a lot" and "not at all" in the various skills. This revealed interesting comparisons between schemes. Firstly we considered those who felt they had improved "a lot" - here we found that:

(i) more EBS trainees than others felt that they had improved "a lot" in 7 of the 17 skills. These were related to both personal development and employment.

(ii) More GTC trainees than others said that they had improved "a lot" in 5 of the 17 skills. These skills were mainly job specific, though they also included "making decisions" and "solving problems".

(iii) More workshop trainees than others thought they had improved "a lot" in 3 of the 17 skills. These were related mainly to personal development though one (a low percentage) was related to employment.

(iv) More FE trainees than others thought that they had improved "a lot" in 2 of the 17 skills - communication and computers though the percentages here were very low.

On the other hand when we looked at the groups who felt that they had been helped least we found that:

(i) more GTC trainees than others thought that they had made no improvement in seven skills. These were mainly to do with self-development but also included "understanding society" and "writing and reading".

(ii) More Workshop trainees than others felt that they had not improved in four skills, these being mainly vocational skills, though they also included "making decisions".

(iii) More EBS trainees than others felt that they had made no improvement in three skills, "using computers", "working with hands" and "learning new work skills", though the numbers in the latter two were very slight.

(iv) More FE trainees than others felt that they had made no improvement in three skills "solving problems" and "self-confident" being the most significant.

TABLE 2

RATING OF IMPROVEMENT IN SKILLS "A LOT"

Skills	GTC %	FE %	WPU %	EBS %
Making new friends	71	62	72	$\boxed{76}$
Getting to know own strengths and weaknesses	37	30	38	$\boxed{39}$
Growing up	24	35	$\boxed{52}$	37
Learning about leisure time	30	26	36	$\boxed{37}$
Improved self-confidence	41	41	50	$\boxed{52}$
More independent	52	44	$\boxed{57}$	56
Working with people	64	68	81	$\boxed{88}$
Solving problems	$\boxed{36}$	27	28	33
Making decisions	$\boxed{49}$	31	32	45
Learning new work skills	$\boxed{77}$	51	73	66
Increasing chances of employment	$\boxed{57}$	26	32	48
Preparing for the world of work	57	44	40	$\boxed{62}$
Getting on with people in authority	30	49	44	$\boxed{62}$
Understanding society	16	26	$\boxed{28}$	27
Improving reading and writing skills	13	$\boxed{22}$	21	16
Using the computer	19	$\boxed{32}$	19	22
Working with hands	$\boxed{84}$	44	77	62

TABLE 3

RATING OF IMPROVEMENT IN SKILLS
"NONE"

Skills	GTC %	FE %	WPU %	EBS %
Making new friends	0	$\boxed{3}$	0	2
Getting to know own strengths and weaknesses	$\boxed{10}$	8	9	8
Growing up	$\boxed{16}$	14	12	14
Learning about leisure time	$\boxed{34}$	21	18	33
Improved self-confidence	4	$\boxed{9}$	6	8
More independent	$\boxed{6}$	4	4	3
Working with people	3	2	$\boxed{6}$	0
Solving problems	10	$\boxed{13}$	9	12
Making decisions	10	6	$\boxed{11}$	4
Learning new work skills	0	3	0	$\boxed{4}$
Increasing chances of employment	4	13	$\boxed{15}$	6
Preparing for the world of work	4	7	$\boxed{11}$	0
Getting on with people in authority	$\boxed{13}$	4	9	6
Understanding society	$\boxed{16}$	13	7	14
Improving reading and writing skills	$\boxed{47}$	28	35	36
Using the computer	26	25	42	$\boxed{54}$
Working with hands	0	9	4	$\boxed{16}$

Taking these two sets of results together, it would appear that the GTC trainees felt they had been helped most in the area of vocational development and least in personal development. The Workshop trainees were the reverse - they felt they had been helped most in personal development and least in the field of employment. The EBS trainees seem to have fared best in that more of them felt they had improved in seven skills and failed to improve in three though one had the highest percentage for not improving. This was "using the computer" and would indicate that few of the EBS trainees in the sample were getting the opportunity to learn even basic computer skills. It was here that more FE trainees felt they had been helped, as well as in communication skills.

Resources to an open-ended question in the third questionnaire which asked the trainees to state if they felt they had changed during the year and if so in what way also supported this pattern of results. All groups except GTCs felt they had changed in ways relating to personal development to a greater extent than in any other way. For GTC trainees training in specific skills was rated as highly as personal development.

All the above described skills were practised and improved in three different settings, i.e. the centre where the trainees were based, during day release at the College of Further Education and on work experience with a firm. We were interested to know whether or not each of these settings supported different skills and therefore asked the trainees which skills they felt had been improved in each setting.

The strength of the centre where the young person was based differed according to scheme. For the FE, EBS and Workshop trainees it lay in promoting interpersonal skills, while for the GTC trainees it lay in vocational skills.

The day release education element helped most in learning interpersonal skills for all groups, though the GTC and FE trainees also learnt about computers in this setting, while the work experience element was most useful in skills related to employment for all groups of trainees.

In contrast the centres were least effective in promoting communication skills such as reading and writing and the use of computers, while the day release element was also least successful in helping reading, as was work experience. When considered along with the previously described lack of opportunity to improve in reading and writing skills, these findings are somewhat worrying, particularly in the case of trainees in community workshops, since the NS6 reading test, given at the beginning of the research, indicated that more than 34% of these trainees scored below the average for 11 year-olds in Northern Ireland.

INTEREST LEVELS AND ENJOYMENT

Since motivation to learn and improve may be influenced by interest levels, it seemed important to look at those aspects of the curriculum in which the trainees were most and least interested.

In the third questionnaire, trainees were asked about the interest level of different elements of the programme and this was touched on in three different parts of the questionnaire. The results showed that all groups except GTCs rated work experience as the most interesting part of their courses, while GTC trainees put skills training in first place for interest. The education element was rated least interesting by trainees from all schemes

(11% GTC - 28% EBS rated it as interesting; 9% FE - 30% GTC rated it as boring).

Further information was obtained on the education element in the second questionnaire when component parts of that element were examined separately. The range of those who said various aspects were interesting was as follows:

English/literacy/communication	42% (GTC) - 63% (FE)
Mathematics, numeracy	33% (FE) - 57% (EBS)
Social and lifeskills	60% (WPU) - 75% (EBS)
Other subjects	53% (GTC) - 83% (FE)

It may be noted that English and Mathematics were voted least interesting, that EBS were the most satisfied trainees in two areas - numeracy and social and lifeskills, and FE trainees were the most satisfied in English and in "other subjects", while GTC trainees were the least satisfied in English and in "other subjects".

The interest level may of course depend on the instruction that is being given and trainees were asked on several occasions to rate the instruction they had received. Since a majority in all schemes thought that they were being told what they needed to know in the best possible way (88% of all), the manner of the telling appeared to be acceptable. However, they were more critical of the instruction itself, especially in the further education element where fewer than 50% in any scheme rated the instruction as "good" (range from 27% FE to 47% EBS). The skills instruction was rated more highly (39% FE - 70% WPU rated it "good"). As to the structure of the course, 42% overall liked things as they were, 35% would have liked more practice in fewer skills and 23% would have liked a wider range, but less practice in each. There were no substantial differences between trainees in different schemes on this variable.

DIFFICULTY LEVEL

Interest in a course may also vary according to whether or not the material is pitched at the right level.

The difficulty level of the skills and subjects does not appear to have been a problem unless it was that the material was not stimulating enough. Fewer than 4% rated the skills they were being taught as "difficult" in February, and between 17% (GTC) and 31% (FE) rated them as "easy". As far as the education element was concerned, up to 29% rated the English and Maths as "easy" and up to 17% rated these as difficult. The social and lifeskills subjects seem to have been better pitched, with up to 18% rating them as "easy" and less than 10% rating them as difficult. It was interesting to note that a higher percentage of trainees from WPUs than from other schemes found English, Mathematics and social and lifeskills difficult indicating a wide range of ability for those groups and the problems there must be in catering for them (see Table 4). Overall these results would support the suggestion that where literacy skills were concerned the trainees were not being motivated enough.

ENJOYMENT

The general aspects of the course which were particularly enjoyed by the young people were identified by means of open-ended questions in the first and second questionnaires where the trainees were asked "What

TABLE 4

LEVEL OF DIFFICULTY OF VOCATIONAL AND EDUCATIONAL INPUT

		GTC %	FE %	WPU %	EBS %
Workskills	Easy	17	31	27	27
	O.K.	81	68	70	70
	Difficult	2	1	4	4
Reading/English/literacy	Easy	20	17	29	16
	O.K.	71	81	57	81
	Difficult	8	2	15	3
Mathematics/numeracy	Easy	17	17	27	27
	O.K.	67	76	56	66
	Difficult	16	7	17	7
Social and lifeskills	Easy	15	18	13	11
	O.K.	78	78	78	84
	Difficult	7	4	9	5

did you like most about the course?"

In the first questionnaire, trainees mentioned specific activities in practical areas as being what they liked best. In the second questionnaire, specific vocationally-oriented activities were ranked first again by GTC and WPU trainees, but work experience was liked more by FE and EBS trainees.

Money was mentioned by under 6% in each of these questionnaires.

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EDUCATION

The trainees were also asked what particular aspects of the educational input had appealed to them. Between 26% (GTC) and 44% (FE) mentioned specific classes they had liked in different subject areas, but 52% of GTC trainees said that they had liked "nothing" and that was true also for between 15% (EBS) and 24% (WPU) of the others.

The most useful part of the course was seen to be work experience, with a range of between 48% (GTC) and 60% (Workshops). Though the GTC trainees rated this lowest it was not what they had liked least; and it was liked best of all by FE and EBS trainees. The next highest rating for usefulness was skills training by the GTC group, while other groups saw aspects of personal development (e.g. working with people) as the second most useful skill.

In keeping with this finding, the most important experience was seen by GTC, WPU and FE trainees as that of learning specific skills while work experience was rated higher by FE trainees.

These findings support the impressions already noted of concentration on job-specific skills in GTCs and a broader range of concerns influencing young people in the other schemes.

DESTINATIONS

During the course of the study, 60% of the initial sample left the Youth Training Programme. This was in line with the figures given for the total YTP population. Of those who left 43% found employment, 22% left to become unemployed, 15% transferred to other courses and the

TABLE 5

USEFULNESS AND LIKES BY SCHEME (PERCENTAGES)

	GTC		FE		WPU		EBS	
	Useful	Like	Useful	Like	Useful	Like	Useful	Like
Work Experience	48	37	55	42	60	25	50	61
Specific Skills	34	38	4	25	3	42	3	10
Aspects of personal development	4	9	21	19	17	20	22	14

remaining 20% were those who had to leave the course due to illness, pregnancy, criminal convictions, etc.

The proportion of those in each destination was compared with the original proportion of subjects in each scheme. GTCs had 24% of the original sample, but 31% of those who found employment were from GTCs. FE trainees comprised 27% of the original sample, but 34% of those who remained on the programme were from FE colleges. Workshop trainees comprised 18% of the original sample, but only 14% of those who became unemployed were from Workshops and a lower percentage than might have been expected of EBS trainees also became unemployed. Sixteen percent of the original sample were on special courses and an extremely high percentage of these trainees transferred or became unemployed. This is undoubtedly explained by the fact that three of these courses were of 16 weeks or less duration. Despite the fact that trainees completing such courses were encouraged to join one of the other schemes they were understandably reluctant to do so, though a greater awareness of the progressive nature of the YTP might have helped here.

TABLE 6

SAMPLE LOCATION IN THIRD TERM

	GTC	FE	WPU	EBS	Special Courses
	%	%	%	%	%
Total Sample	24	27	18	15	16
Found employment	31	27	20	12	10
Left - unemployed	25	19	14	10	32
Transferred	19	20	21	7	33
Still on course	21	34	16	17	12
Other	26	18	20	25	11

It could be argued that the emphasis placed on vocational training by the GTCs is 'paying off' if one considers placement in employment to be the main criterion of YTP. However it should be noted that potential employers may prefer trainees from these centres since they have a tradition of vocational training in Northern Ireland while the other schemes are relatively new.

EDUCATIONAL CHARACTERISTICS AND DIFFICULTY LEVEL

As might have been anticipated, fewer of those without examinations remained on the scheme or found employment and they also represented the longest percentage of those who transferred. Those who scored in the higher ranges of the reading test were least likely to transfer or to leave the scheme. Their chances of becoming employed, however, were similar to those of the lower reading groups.

We also looked to see if those trainees who found the course too difficult tended to leave or transfer. Here it was noted that those who became unemployed were more likely to have found the tasks boring, and less likely to have found them interesting; they were less likely to have found the tasks easy, or to have found the equipment or instruction good, and those who actually rated instruction as "poor" were more likely to have transferred.

NEED AND PURPOSE

In the first questionnaire, 47% of trainees had expressed a wish for vocational skills training and these trainees were indeed less likely to transfer, and more likely to find employment or stay on the scheme. They were not less likely to have become unemployed. Fewer of those who became unemployed had hoped to find a job through YTP, while the biggest proportion of those hoping eventually to find work had in fact remained on the scheme.

Overall, it would appear to be the trainees who had not performed particularly well at school, who tended to find tasks difficult and boring, who found the instruction and equipment poor, who did not expect to find employment at the end of the year and who had not expressed vocational needs who were more likely to leave to become unemployed or transfer.

However what of those who stayed on the scheme until the end of the year? In the final questionnaire when these young people were asked what kind of advice they would give to someone thinking of joining YTP only 3% said "don't apply" (though it must be remembered that 60% had already left the course at this stage). Thirty-one percent said "apply now" while 57% said "visit some of the schemes first". This note of caution from those who stayed on may indicate that the trainees have, through their social and lifeskills input, learned the necessity of considering all alternatives before making decisions. Alternatively, it may indicate the need for better guidance and counselling at the placement phase of YTP.

In summary the results indicate:

1 clear differences across schemes in areas of improvement, with employer-based schemes supporting personal and vocational development; GTCs supporting vocational development; and Workshops and FE courses

supporting personal development. The strong emphasis on vocational training by the GTCs was reflected in the trainees' comments on interest, usefulness and enjoyment. Also, the lack of awareness of personal development by the GTC trainees may reflect the low profile that guidance and counselling is given by these centres.

2 Little support for communication skills, particularly reading and writing, in any scheme or setting. This would indicate the necessity for greater assessment of the needs of the trainees, perhaps through appropriate use of the profiles.

3 The educational input was seen to be of least interest or use by the trainees. This finding may well reflect the lack of adequate consultation between providers and colleges of further education at the planning stage of YTP. Closer liaison here could well result in a more valid and useful education input for the young people.

4 Of those who left the scheme during the year the highest proportion (43%) went into employment, the largest percentage being from GTCs.

5 There was some evidence to suggest that those who "opted out" or transferred were less able or less motivated.

Irish Educational Studies, Vol. 5, No. 1, 1985

LOCAL STUDIES IN TALLAGHT : A CASE STUDY IN CURRICULUM INNOVATION

Séamus Ó Canainn and Tomás Ó Briain

I

INTRODUCTION

It is important to point out that the project which is being described did not set out to be a curriculum innovation at all. The people most closely involved with it would not regard themselves as curriculum innovators in any formal sense. That it has turned out to be such is simply to bear out the oft-repeated dictum " . . . that every teacher is a curriculum innovator". Unfortunately, this statement is more often made as an exhortation than as a description of what is happening. More importantly, it demonstrates the importance of starting somewhere in order to acquire the skills of curriculum innovation. Teachers do not have the luxury of going off to develop highly refined skills in a vacuum and then turn around and transform their teaching situation. Neither does curriculum innovation take place where an outside expert with similarly refined skills intervenes. Curriculum innovation occurs in the organisation of the work of individual teachers in their schools and with their classes. It has to do with a gradual acquisition of skills and confidence in which personal development is closely linked with professional development. A suitable subtitle for this paper might be: those who do, can!

This paper is in two parts. In the first part, by Seamus O Canainn, the overall organisation of the project is described. In the second part, by Tomas O Briain, one element of the project, an in-service course held in July 1984, is described in detail.

What has occurred in Tallaght is that a good idea was allowed to develop in directions set by Tallaght teachers and at a pace they found acceptable. It did not include all Tallaght teachers by any means, but there is no doubting the enthusiasm of the great majority who have taken part.

LOCAL STUDIES : A DEFINITION

"Local studies" means using the local environment of the school as a starting point for the study of topics and themes on the curriculum. In doing so a very natural integration of subject areas is facilitated, as they are encountered in the environment, and teachers are engaged in producing teaching materials for their children in their children's environment. It involves a change in teaching practice and account has been taken of this in the in-service courses organised, both in the design of the courses and in the production of teaching materials.

HISTORY OF THE TALLAGHT PROJECT

The project arose out of discussions between Seamus O Canainn, as Director of the Teachers' Centre, and a group of teachers in the Tallaght area in early 1982.

Over several months of intermittent discussion among this group, an awareness developed of the need to make teachers aware of the history of the area and the community there, and to equip them to communicate this to their pupils, in order to create a link with the past and a sense of continuity for its vast new population.

IN-SERVICE COURSE NUMBER 1

This group met several times during the spring of 1982 to plan the first local studies in-service course for the following July. All the teachers involved in the planning were primary teachers and the course planned was to be a week-long course at the beginning of July. The course had three objectives:

a) to increase teachers' awareness of the area, both its history and its more recent development;
b) to introduce teachers to research skills, and source materials;
c) to produce teaching materials.

An important consideration throughout was to be the contact with primary source material, during the course, whether this be out on location in the environment, or studying documentary material, maps and historical documents. At the same time there was an awareness that most teachers who teach in Tallaght do not live there, so it was necessary to begin with a few general surveys of the area's history and recent development. In that respect we were fortunate to have at our disposal the expertise of Leo Swan, a well-known archaelogist, teaching in Tallaght and who had made a particular study of the area over the years. We also called on the services of the Planning Department of Dublin County Council to provide a speaker on planning and development in the area. Two further speakers on the first day were the education officers of the Public Records Office and the National Library respectively. Their contributions were intended to make teachers aware of what was available by way of source material in their institutions.

Much of the rest of the week was spent in workshop groups, working intensively on topics which were felt to be of particular interest. These were: prehistoric and early Christian Tallaght, education, the Dodder (the river which runs through Tallaght), the Dominicans in Tallaght (the Dominican Priory has been a focal point in the religious life of the area since the latter half of the nineteenth century and harks back to Tallaght's early monastic prominence), placenames/population, planning and development, and industry.

These topics were a mixture of the historical and contemporary and, while not exhaustive, were intended to give a reasonable scan of the areas, past and present, within the limits of time and available expertise.

The majority of these groups was led by local teachers: those who had taken part in the original planning sessions earlier that year. It was a very courageous undertaking for them, working with their peers. Where a nonteaching specialist was engaged, he/she was paired with a practising teacher to prepare the workshop. These groups were to be assigned the task of investigating particular topics and producing teaching materials on them. Each group's work would be shared at the end of the week. When the course was advertised fifty-five enrolled.

During the week the course participants were very enthusiastic. It was evident that the tactic of having people observe sites and points of interest at first hand was very important. Also important was participants' active involvement in workshop groups, teachers themselves engaged in discovery learning. There were several points on which the course did not meet the initial objectives. In the first place the production of teaching materials was not sufficiently well controlled to produce the desired result, so much of the activity in workshops went to increasing the level of teachers' awareness of the area without their translating that into a form which would be useful in the classroom. Furthermore, the amount of documentation which was made available to people by way of source material was excessive and tended to overwhelm participants rather than aid them in developing research skills.

TALLAGHT BOOK AND KIT

When the group of teachers who had organised the course met again in the autumn of 1982 the enthusiasm continued, and arising from requests made by course participants and other teachers, we decided to put together, in book form, the principal lectures given and the findings of workshop groups. It was decided to produce a book and two filmstrips. These took considerably longer to produce than anticipated at the early stages, and were finally made available only in May 1984. Since then, they have proven to be very popular with teachers.

IN-SERVICE COURSE NUMBER 2

In June 1984, the author was asked by the Curriculum Development Unit City of Dublin V.E.C. to organise a local studies course for teachers teaching the Humanities Programme sponsored by the unit. Aware of some of the shortcomings of the previous course and having learnt something from a subsequent local studies course in Dun Laoghaire in July 1983, the author organised several workshops on educational trails. These were well received and generally agreed to have real possibilities in schools. Another development was to organise teachers into workshop groups on documentary source material to familiarise them with the documents and to introduce them to research skills. This was organised jointly with the education officer of the Public Records Office, Ken Hannigan. We had four workshops: land holding; the famine; education; and census material of 1901 and 1911. Some additional material was provided on law and order from the Outrage Reports. In preparing this material for the workshops the problem of retaining the authentic appearance of the documents while making them legible was overcome by having them typed up on facsimiles of the original forms. The idea behind the workshops, which were sought by these teachers, was that an understanding of a national phenomenon such as the famine could be gained from starting with an analysis of how it affected Tallaght. In doing this, census material, relief commission correspondence, and workhouse records were examined to build up a picture of what happened to a Tallaght person during that time. These documents led on in a natural way to the facsimile documents produced by the Public Records Office and the National Library which give a picture of the national phenomenon while emphasising investigative work by the participant. An objective of this approach would be that school children in turn would be engaged in active investigative research using carefully selected documents. An interesting spin-off occurred in one workshop where the documents provided an opportunity for creating an educational trail.

IN-SERVICE COURSE NUMBER 3

A further course was held in July 1984 to build on what had gone before. This is dealt with separately, since it represented a new departure and requires fuller treatment. Tomas O Briain, who co-ordinated that course, will describe it in detail in the second part of this paper.

THE ROLE OF THE TEACHERS' CENTRE

The role of the Teachers' Centre in all of this has been to co-ordinate the work of the planning group, to organise and advertise in-service courses and to provide encouragement and support. It has also had to provide the technical and reprographic facilities, as well as organising finance.

With regard to finance it will be of interest that the entire project, which so far has cost in the region of £4,500, has been self-financing. This is not a matter of any great pride in that, in the main, costs were covered by teachers having to pay for their own in-service work through course fees. Teaching materials produced on the courses have been sold at cost as has the Tallaght book and filmstrips. The only other sources of income have been a small amount of sponsorship. Any shortfalls have been met out of the centre's own inadequate grant. The entire exercise has depended greatly on the co-operation and voluntary activity of many teachers, and the success of the venture so far is a testimony to their dedication.

CURRICULUM INNOVATION

As an exercise in curriculum innovation the project has several important points in its favour. Because emphasis is placed on the teacher as innovator, professional development is a natural growth. It gets away from the centre-periphery model of dissemination in curriculum innovation much favoured by the U.K. Schools Council for instance until the mid-seventies, in which the teacher was at best a passive consumer of curriculum innovation or at worst perceived as a barrier to change. In Tallaght, teachers have been actively engaged in the development of teaching materials and innovative approaches to teaching.

Curriculum innovation will take place, not in general, but in particular. It will occur in individual schools and classrooms to the extent that individual teachers will undertake it. It will depend on the professional development of teachers as competence and confidence grow together. Skills are learnt and the teacher has the confidence to change the teaching approach. The average teacher cannot for instance organise discovery learning for her pupils unless she has had some personal experience of learning through discovery. This understanding is at the heart of the organisational format of the in-service courses we organise. The educational trails are then designed by teachers to engage children in the activity which the teachers have acquired mastery of.

OTHER ADVANTAGES

A further point in favour of local studies is the extent to which it involves individuals and institutions in the community in education: local industries and commercial outlets; local library; the local council or corporation; the Gardai; local historical societies; and institutions such as AnCO. In addition, individuals in the community who have particular expertise can be drawn in to contribute.

It has also contributed greatly to the creation of a local identity among Tallaght teachers. This is evidenced by moves now afoot to establish a Teachers' Centre in the area to provide a more comprehensive and accessible service to teachers there. The group of teachers involved in the organisation of local studies has taken matters into its own hands and is organising activities independently of, but with the full co-operation of, the Blackrock Teachers' Centre. This is a very welcome outcome which attests to the professional development which has occurred.

FUTURE DEVELOPMENTS

Since beginning this project in Tallaght, local studies has caught on in several other areas, particularly in Dun Laoghaire and Bray. During the coming summer, a course is being planned for the inner centre area of Dublin and further courses are planned for Tallaght and Dun Laoghaire. Some advances have been made in the technical area in the design of more appropriate graphics and hopefully, in the near future, a handbook on educational trails. Another possibility is the use of video as a device for dissemination of the ideas and activities associated with local studies. A desirable, but at this stage distant, hope is to use computer-aided graphics in the design of trails.

A major difficulty throughout has been dissemination; how to encourage more teachers to take an interest and how to support teachers who are taking part. At present an attempt is being made to organise school-based workshops, and drawing adjacent schools, both primary and secondary, together in a locality. In addition, with the number of teachers who have done an in-service course at this stage, the level of expertise available to schools has increased considerably. Despite any difficulties encountered however, the degree of enthusiasm exhibited by teachers who have taken part has been most encouraging and makes it worth the effort.

II

IN-SERVICE COURSE, JULY 1984

The present primary school curriculum was introduced in 1971, fourteen years ago, yet one still hears its being called the 'new' curriculum. In the early days of its use in schools there was a vision presented of a typical Irish primary school class busily engaged at local studies projects both in the classroom and outside the school 'on location'. But it is fair to say that, today, many primary school classes and their teachers know more about the Ruhr Valley or the Grand Canyon than the local river valley or the mountains that can be seen through the classroom window. The plant and animal life of the Everglades are often more familiar than those living in the fields and hedgerows near the school. In the developing area like Tallaght in County Dublin, where, in less than 20 years, it has gone from being a small rural community whose needs were met by one or two small schools to a large urban spread needing over 500 teachers to cater for a primary school population of over 20,000 children, local studies pose additional difficulties. The vast majority of these teachers live outside of Tallaght having little or no contact with the environment that is local to their school.

Many of these teachers recognise the need to involve their pupils in the locality and to relate their classwork to the environment.

It is true to say that most of the group qualified as teachers in the era of a training college rather than a college of education, with a master or mistress of method rather than a professor of education. If they were aware of different models of curriculum innovation none of them indicated that awareness.

After preliminary agreement that this course should build on the work of the previous course and that for the newcomers it should introduce them to the resource book and the filmstrips, two views emerged as to the nature of a local studies course - as to what local studies mean and especially what teachers expect from such a course.

a) Teachers who would come to a local studies course would be teachers at the top end of the primary school and would be expecting a major history and geography input.
b) Local studies should be what it says and is the province of the whole primary school.

The planning group divided with more in favour of the first view with the chairman of the group remaining neutral.

The group was in agreement on the view that many teachers experienced difficulty in taking a class outside the school for any study of the environment. This difficulty, it was concluded, had at least two roots:

i) class management;
ii) the perceived educational value of such an exercise, both of which were interrelated. Children, excited at being out of the classroom taxed the controlling techniques of the teacher to the limit and frequently the interests of teacher and pupils diverged in the selected location. Many teachers going through

> such an experience preferred the relative peace of the classroom or at best accepted the subject wisdom of authority in a spirit of endurance but in their hearts questioned the educational value of such excursions.

The planning group accepted that the summer course should address itself to the difficulty of class management in an outside environment. The immediate school environment seemed now to be an ideal place to surmount this management problem. Members of the group who previously insisted on the history and geography nature of local studies now accepted the other view though one still asserted that teachers coming on the course would be expecting a history bias.

At this point the use of educational trails was proposed as a structure whereby a teacher would be enabled to use the outside school environment as a learning resource.[1] Trails had been introduced the previous year into a local studies course in the Dun Laoghaire area and the good news was spreading. With some foresight Seamus had already booked Martin Doherty a trails 'expert' from Derry Teachers Centre to come to Dublin again.

We were now meeting for the third time and the need for agreement on a programme and timetable to be sent to the schools was apparent. The timetable reflected the emphasis of different members of the group:

a) there was to be an input by historians on aspects of Tallaght;
b) there was to be a paper on the location of sources for the study of Tallaght;

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[1] An education trail is a planned and structured route through the environment, during which the pupil is encouraged to observe, comment on and critically appraise what he/she experiences.

c) there was to be an introduction to trails;
d) finally, there was the expectation that the participants would translate these three aspects into practical class activities.

The course was planned with 30 teachers in mind. It was intended that there would be six workshop groups of five persons each which would allow for ease of transportation and would place a sufficient demand on all to get involved in the practical sessions. Members of the planning group were delegated to act as group leaders and were expected to do some preliminary work as preparation on the designated area of activity. It was our aim that teachers could return to school in September with a local studies kit that would be beneficial to their class activities.

Forty-four teachers enrolled in the course, and interestingly, in view of the discussion on the nature of local studies, quite a number of them identified themselves as teaching the younger children.

We were blessed with exceptionally warm weather for the whole week. Monday, when compared with the rest of the week, could be described as a passive day for the participants. It could be said that many were looking forward to a week with as few demands on their efforts as possible. Quite a number taking part in the course reminded me that they were at the end of a hard year in school and not to be expecting them to do any work. Some were at another course the previous week on the strength of their teaching in schools in disadvantaged areas.

On Tuesday Martin Doherty, our trails expert, soon disturbed the peaceful atmosphere of the lecture room. On arrival each participant was given a pencil, a trail booklet and a clipboard and after a few words of instruction and orientation was sent out to do a trail in a local industrial estate. At stop number 1 on this trail these 40 adults caused quite a stir for the security official in one of the factories. Without any warning these 40 adults descended on his factory in cars, armed with pencils and clipboards and stood outside his factory gate observing and noting the happenings inside the factory grounds. Clearly they were up to no good!

When they returned Martin gave a brief outline of the development of trails and the steps to be followed in producing a trail.

The participants then retired to the workshops to prepare the trails. It was expected that the trail booklet would be completed by the afternoon of the following day. During that time participants were:

a) to visit the location of the trail;
b) establish the points of interest while walking the route;
c) decide on the age group for which it was intended;
d) prepare the booklets and test them.

All six groups had completed their booklets on time. The fact that there was no walkout is an indication of the interest that was generated, the dedication of the teachers and the preparations made by the group leaders. The video film records the intensity with which that Wednesday was filled. One teacher told me on Thursday morning that she had had a pain in the back of her head on Wednesday evening "from the pressure you had us under".

On Thursday morning each workshop group was given a set of trail booklets devised by one of the other groups. They walked the route and filled in the blanks on the booklets. This was followed by a joint session in which each group gave a critique of the trail it had just done as to its suitability and its practical application to the age group for which it was intended. The types of criticism leveled were of the kind: "sketch the tower"; "too much work to be done here"; "what speed limit is on the road?"; "at that spot there are two speed limits depending on the side of the sign one looks at"; "problem finding tree stump"; "Jacob's Biscuits did not have any smell today"; "need for traffic warnings"; "directions were different from the directions on the map". The most serious and dramatic criticism was the sixth group arriving back nearly an hour after the rest having done the reservoir trail. The name of the booklet: "I'm Drippy", they said, should be changed to: "I'm Tired".

The trail booklets were then returned to those who had compiled them with the notes and criticisms and another draft was made of each. There are copies of these later versions available.

One could detect a sense of work well done at this stage, a feeling of having acquired a new tool that would enhance the classroom activity of the teachers who had participated in the course. Many of the teachers expressed the desire that the group should meet again to continue the work that was started in that week. Many praised the style and structure of the course and quite a number voted it the best course in which they had taken part. Both the oral and written comments on the course indicate a sense of great satisfaction. "I hope my enthusiasm continues in September" is typical of many of the written comments about this course.

What occurred in this course can be replicated by others. There was, first of all, a recognition of the need and a demand for a change. Each member of the planning group came to the group with a distinct dissatisfaction with the state of affairs in the teaching of local studies and with a clear view of how a summer course should cater for improvement of the learning-teaching milieu. The exchange of ideas and the consequent process of adaptation that led to a consensus ensured that the resultant course would be better suited to its participants. The structuring of the course owed much to the mutual recognition of a teaching problem and an agreed proposal as an attempt to solve it. It was not our first attempt to find such a solution to this teaching problem nor will it be the last. The degree of success that has been achieved is due to the recognition of primacy of the teacher in the solution of a learning-teaching problem. The teacher is acquiring the further skill of curriculum innovation. The outcome is professional and personal development. Too often in the past attempts were made to change the curriculum from outside the classroom. The Primary School Curriculum is an example of such an attempt. It is only when the teacher becomes an active participant in the curriculum change activity that worthwhile outcomes can occur. We hope that our example will encourage others to do the same.

See also Trails : A Handbook for Teachers (Queen's University of Belfast Teachers' Centre, 1981).

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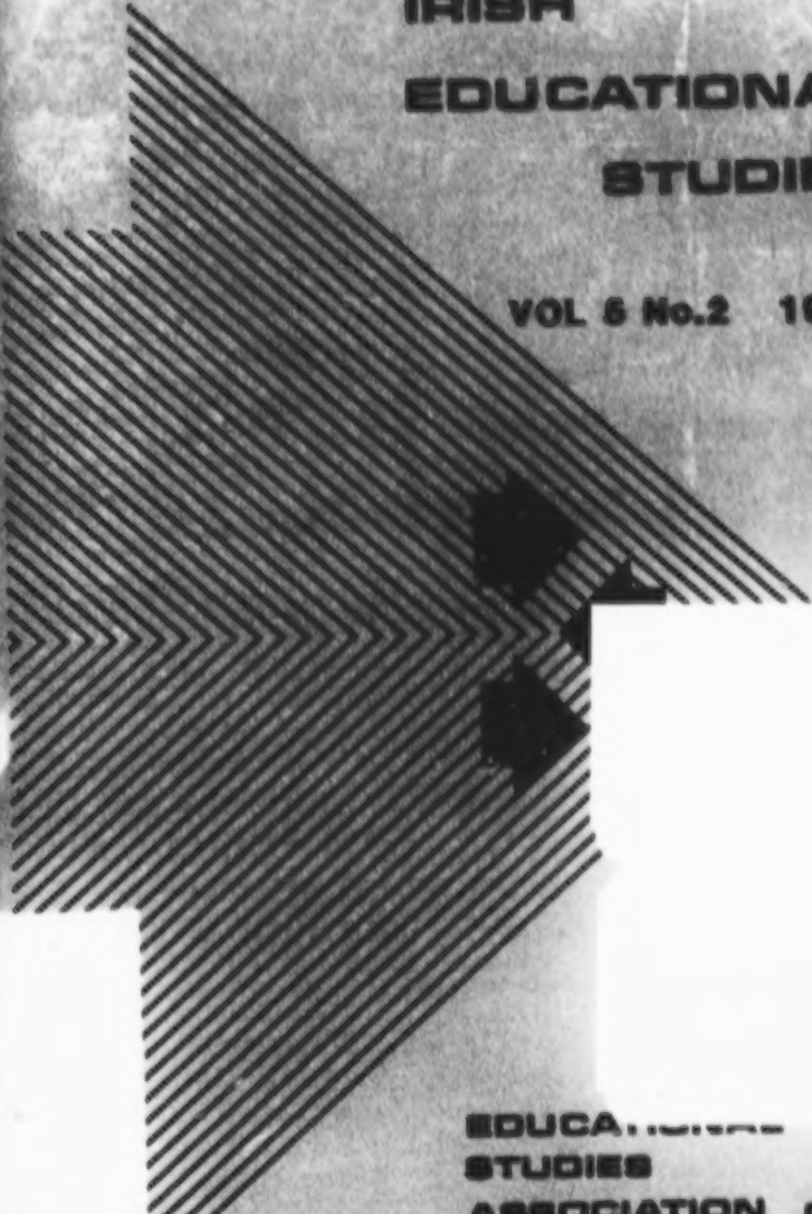

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LEFT BRAIN, RIGHT BRAIN

Rev. Professor Séamus V. Ó Suilleabháin

Introduction

It might be advisable, at the very outset, to state how this paper came to be written and also to indicate its limitations. The limitations will be quite clear. The paper is not an original contribution to neuropsychology nor is it a thorough review of the literature. The writer holds no particular academic qualifications nor background in this specific area of brain science. The paper has arisen out of a growing interest in two allied fields, one general and one specific.

Last year the writer delivered a paper on "Imagination: that one talent that lies buried".[1] While preparing that paper the writer was asking in his own mind 'What is the relationship between the actual physical perception and subsequent imagery?'. The query was not pursued at the time as it was somewhat outside the scope of the more general side of imagination. Recently the query resurfaced when two neuropsychological specialists asked the questions: 'Is the visual image really visual?'[2] ...does the visual imagery involve the same neural circuitry as visual sensations and perceptions?'.[3] These experts answer the query by saying: '... on the neural level the visual image seems to be distinct from visual sensory perceptual experience'.[4] This is quite a momentous statement and in the work of these writers their answer does not go unsubstantiated.[5] They look back on the views of the British empiricists that all mental phenomena were derivatious of sensory experience and so "... the classical view in neurology came to be that the visual cortex is critically involved in visual imagery."[6] This view is no longer tenable.

This then appeared to be a developing field based upon neurophysiology and neuropsychology at a very advanced level of sophistication. It seemed to offer a solid scientific base for looking at the physical substrata of mental phenomena in which as educators we are interested. The writers continued:

> Furthermore, an understanding of the neural mechanisms of imagery would have wide ranging implications for bridging the gap between mind and brain for imagery is truly a mental function. [7]

In the paper on "Imagination" there was, also a certain emphasis upon a creative element. This concept of creativity also receives more than a passing interest from psychologists and educators who are keeping abreast of new developments in the field of neuropsychology. This will explain the writer's specific growing interest.

On a more general level, however, we are all aware of school failure and the criticism that our present curriculum is, for many pupils, too weighted in favour of the traditional academic grammar school programme. Our Curriculum and Examinations Board is a response to this situation. We are reminded that our school programmes are too linear, logical, verbal and abstract and so give little option to those whose talents may lie in other directions. The question "what other directions are there?" is not altogether irrelevant. Recent advances in neuropsychology and in neurophysiology, the brain sciences, are opening up solid avenues of research which one cannot ignore. In Ireland to date there is little, if any, evidence to show that the implications of these approaches are being considered.

And so, in this way, this paper on 'Left Brain, Right Brain' had its origin. As has been stated it is neither an original contribution nor a critical review of the field; it is rather an attempt to create a higher level of awareness and perhaps a resulting involvement. There is no intention here of trying to disentangle the relationship between mental phenomena and brain mechanisms, a field of research which only relatively recently has begun to develop towards that end.[8]

BRAIN ORGANISATION

Current discussions about brain organisation centre around a number of key questions: how is the brain built?; what is the nature of its functional organisation?; what structures or systems of the brain generate those complex needs and designs which distinguish man from animals?; how are those nervous processes organised which enable information derived from the outside world to be received, analysed and stored?; and how are those systems constructed which programme, regulate and then verify those complex forms of conscious activity which are directed towards the achievement of goals, the fulfilment of designs and the realisation of plans?[9] According to Luria the working brain has a future thrust as well as a past set of experiences. The brain works on principles unique to itself and 'can never be represented by mechanical analogues'. The brain cannot be regarded as a purely passively responding apparatus. It is an active, waking system.[10]

The brain is the coordinating centre of the central nervous system. There are three main sections in the brain: the hindbrain, which includes the cerebellum, the mid-brain, and the forebrain, which includes the cerebral hemispheres and cerebral cortex. The two cerebral hemispheres are linked by means of interconnecting fibres through the corpus callosum and the anterior commissure. It is not the intention here to go into anatomical detail but some minimum outline is useful.[11]

A further comment on brain organisation is important. Luria distinguishes three functional units in the brain: a unit for regulating tone or waking; a unit for obtaining,processing and storing information, and a unit for programming, regulating and verifying activity. These units are hierarchical in structure and each consists of, at least, three critical zones which are 'built' one above the other. There is a primary (projection) area for reception of impulses; there is a secondary (projection-association) area for processing information and preparing programmes and there is a tertiary zone (zones of overlapping) area for the most complex forms of mental activity.[12]

Our main concern here is with the two cerebral hemispheres, the left cerebral hemisphere and the right cerebral hemisphere, or the left brain and the right brain. The question then is: how do the two halves relate? Are they both exact replicas of each other? Or do they have unique functions? Before looking at some of the answers it is accepted, by the specialists, that "... all neural structures are involved in the programming and guidance of an organism's behaviour."[13] The concept of mental unity is recognised because, as Gazzaniga notes, "... we believe that the interhemispheric pathways transfer highly specified neural codes that serve to maintain an informational balance across the cerebral midline, and in so doing, provide for mental unity."[14] The hemispheres work in synchrony.

> The human brain is organised so that two potentially independent mental systems exist side by side. When separated by the slice of a surgeon's knife, each resulting half brain possesses its own capacities for learning, emoting, thinking, and acting. Yet, with the forebrain commissures intact, these potentially independent neural spheres work together to maintain mental unity. 15

We do, however, know from brain studies that certain functions seem to be more favoured by one half brain than the other, for instance, in right handed people, over 90 per cent of the population, it is the left brain which contains the developed language areas. It is surmised that the right hand became the tool hand, linked with tools and naming objects and so, owing to cross-laterality, the left brain gradually became dominant for language even though both halves were capable of language.[16]

The question of hemispheric specialisation, if it really exists, becomes important as one would wish to know what precise areas of specialisation there are. Attention will be drawn to this in a moment but first a brief look at some of the techniques used in brain studies.

TECHNIQUES FOR BRAIN STUDY

A variety of techniques are in current use in the study of brain organisation and brain functioning. The more direct interventionist techniques fall within the competence of specially trained medical personnel. The central attention here is directed towards diagnosis and treatment. Recent developments have brought refinements in interpreting electroencephalogram scans. The delta, theta, alpha and beta brain waves representing deep sleep, a dreamy wakefulness, a relaxed wakefulness and an externally focused attention have been used, apart from the medical purposes, to check the type of levels of activity in either the left brain or the right brain. Research indicates alpha blocking in the right brain on verbal tasks but no asymmetry on visual tasks.[17] In brief the left brain shows beta waves, more externally focused attention, for verbal tasks.

The carotid amytal test - the injection of an anaesthetic, sodium amytal - can be used to put one half of the brain to sleep, thus allowing for function testing within the other half.[18] Results will be discussed later. Tracing defects, left as a result of brain damage from whatever cause, has been very widely used to indicate physiological functions of certain anatomical areas in either half brain. Such studies have greatly facilitated mapping the extent of lateralised functions.[19] A further technique is linked to the influences of certain drugs - pharmacological studies. To a much more limited extent brain stimulation, during or after surgery, also helps in locating areas for specialised function.

Finally, within the strictly medical area the rather recent split-brain surgery, used to control the more severe forms of epilepsy, brought to light much evidence about the workings of each cerebral hemisphere. Some of the 'pop' versions of hemispheric functions became over-dramatised and in the last few years efforts are being made "to re-establish a basic, sober framework for considering studies on cerebral commissurotomy."[20] Nevertheless brain bisection has become one of the more explicit techniques for understanding hemispheric functioning.

Apart from these strictly medical methods a number of other methods are being used by psychologists and other qualified personnel. One might mention here dichotic listening - a different message simultaneously presented to each ear; tachistoscopic image presentation - words to left brain, image to right; conjugal lateral eye movements; and self report techniques.[21] All of these methods are attempts to increase our knowledge of cerebral hemispheric functions. Some studies dealing with brain growth and the effects of myelination seem to point to a quicker maturation of the left hemisphere after the age of four.[22]

From the educational and psychological point of view most of these studies represent very sophisticated techniques for getting inside the 'black box' as distinct from the input-output studies of other disciplines. This in no way reduces the importance of those studies but it should provide them with a sharper focus.[23]

RESULTS

One must now turn to look at the results of these developments. Luria states the position as he saw it up to 1973:

> The left (dominant) hemisphere (in right handers) begins to play an essential role not only in the cerebral organisation of speech but also in the cerebral organisation of all higher forms of cognitive activity connected with speech - perception organised into logical schemes, active verbal memory, logical thought... 24

Lesions in secondary and tertiary areas of the left hemisphere cause problems for higher psychological processes.

By 1979, Myers, in summarising the work of Betty Edwards, Drawing on the Right Side of the Brain, was able to write:

> The left mode is verbal, analytic, symbolic, abstract, temporal, rational, digital, logical, and linear; the right mode is non-verbal, synthetic, concrete, analogic, non-temporal, non-rational, spatial, intuitive and holistic. [25]

Perhaps not everyone would agree with this level of precision. So the general conclusion at present seems to be that the left hemisphere has been found to excel in situations demanding verbal processing while the right does better on non-verbal skills.[26] There are indications that the left hemisphere is more anatomically specialised for the discrete, focal information underlying logic and that the right is more diffusely organised, which is advantageous for orientation in space and for other situations which require simultaneous processing of many inputs.[27]

In recent writings the notion of 'dominance' in discussing the cerebral hemispheres has come under critical review. Clinical studies indicate that both cerebral hemispheres are equal on perceptual processing but at the upper limits "... the qualitatively superior manipulospatial and the relatively superior perceptual skills of the right hemisphere arise as a by-product of the fact that language is usually in the left and thus (these skills) do not represent evolved specialisation of the right."[28] There is little convincing evidence to support the view that the hemispheres differ qualitatively in visual auditory or musical perception.[29] There is a popular view that each half brain has evolved its own "specialised neural substrate to sustain a unique cognitive style and mode of information processing ... (but) this popular view of lateralisation goes well beyond the data from which it emerged."[30]

From the evidence of normal, brain-lesioned and split-brain subjects the conclusion is that each hemisphere is endowed with certain capacities that are either lacking or poorly represented in the other half brain.[31]

At this point perhaps a summary of the established facts may be useful before looking at the implications. Baker in Clinical Neurology[32] notes the following:

- the right and left hemispheres process sensory information in qualitatively different fashions ... these represent fundamental differences in processing which are not limited to these modalities of sensation (vision and hearing);
- studies emphasise the importance of the right hemisphere in spatial cognition;
- the right excels in the ability to visualise the total configuration of the stimulus from partial information, in the capacity to perceive part - whole relationships, in the apprehension of spatial relations within a stimulus field, in the capacity to process complex but unchanging stimuli, and to excel in the perception of Gestalten;
- in contrast the left excels in the analysis of details, a concept which contains embedded, implicitly, the notions of the whole as a sum of parts and of time, the sequential analysis of changing auditory events for example, rhythm;

- the left excels in the capacity for naming (attachment of linguistic markers to analysed details) and other linguistic functions;
- the right does have nonverbal memory.

A final reference in this context may be made to a report in 1983 by Jerre Levy, Associate Professor of Behavioural Sciences in the Department of Biopsychology of the University of Chicago. In the first instance he lists a number of erroneous views sometimes given expression in educational journals. These erroneous views include:

- Rationality and logic are the sole province of the left hemisphere.
- Intuition and creativity are the sole province of the right hemisphere.
- Standard school curricula educate only the left side of the brain.
- Music and art are reflections of right-hemisphere processes.
- Modern technological civilisations depend on left-hemisphere functions and do not engage right-hemisphere functions; therefore, people with potentially high right-hemisphere capacities are the victims of discrimination in modern advanced cultures.
- When engaged in any particular activity, people think with only one hemisphere at a time, either the left or right, depending on the activity.
- Some people think only with the left hemisphere: others think only with the right hemisphere.

- Scientists who study brain asymmetry now have all the answers regarding how children should be educated.[33]

As noted earlier, the whole brain is involved in all mental operations. Nevertheless, the two sides of the brain do differ and they differ in quite important ways. The nature of these differences has little connection with some popularised ideas. The following seems to be a broad outline of the position:

- ordinary language production can be assumed to be almost always under control of the left side of the brain; nevertheless, the right side does play its part in rounding out a full appreciation of concepts which, of course, includes elaborate sets of verbal associations as well as sensory and experiential associations;
- the right brain, however, has little or no comprehension of syntax and grammar;
- interestingly enough the processing of verbs is directly a function of the left brain;
- both hemispheres not only play critical roles in the purposes of language but also in organising the perceptual and cognitive processes that are prerequisite to understanding;
- with regard to music the left brain is involved in discriminating and in producing temporally ordered sequences; the right is superior in discrimination and memory for single musical chords (shape is involved); music appreciation is a whole brain function;
- with regard to art: with left side damage, overall configuration continues to be adequate

but detail is radically impoverished; with right side damage, rich details remain, but overall form is inadequate;

- real art is neither pure configuration nor pure detail; it is a brilliant synthesis of the two;
- neither hemisphere is more 'creative' nor more 'intuitive' than the other;
- very little data are available about hemispheric asymmetries in mathematical and logical function; in geometric reasoning, however, the right hemisphere is clearly superior;
- the direct implication of these observations is that both hemispheres are involved in thinking, logic, and reasoning, each from its own perspective and in its particular domain of activity.[34]

By way of a final comment on these results there would appear to be a link with some former theories of intellectual development. For example, Piaget's theory of intellectual development (learning) "referred to integrated hemispheric functioning: the sensori-motor, pre-operational and pre-conceptual stages depend on holistic pattern recognition, intuitive reasoning and representation as well as partial or incomplete logical systems."[35] Obviously, formal operations would appear to be a left brain function. Thurstone recognised intelligence as the ability to think logically - left hemisphere functioning - and to see relations among patterns - right hemisphere functioning.[36]

IMPLICATIONS

In the general area of brain studies we find the implications for education occurring at three different levels. On one level we find the cautious remarks of the brain scientists. On another level we find the considered opinions of professional educators and allied personnel regarding the practical implications of the research, opinions closely based upon the work of the brain scientists. On the third level we find a more popular interpretation which may be somewhat generous in its generalisation.

On the first level there is a definite indication that continued brain research will help in improving our understanding of intellectual development.[37] It also appears that emotional closeness and experiential learning environments improve the development in the young of myelinated axons which speed up the processing of information.[38] Developing this notion in a somewhat different context, Levy notes, further, that "The right hemisphere seems to play a special role in emotion. If students are emotionally engaged, both sides of the brain will participate in the educational process regardless of subject matter."[39] A further point in this context is that the thalamus, hypothalamus, hippocampus, amygdala and pituitary gland are sensory gateways. If one is faced with anxiety or threat to one's self-esteem there is a thalamus shutdown. On the other hand, if the person is happy and contented, messages to the neocortex go through quickly.[40] This is neuropsychological confirmation of what all good teachers knew.

Further, the critical factor in brain function is the quality of neural connections, not mere tissue quantity.[41] This view is linked to that of Luria, expressed earlier in this paper, dealing with the three functional units in the brain and the three projection-association areas. This is not just a genetic determinant but depends too upon the quality of one's living experiences and learning. This is a challenge to the quality of life in classrooms.

The evidence from the experts is further saying that each hemisphere is not for one type of information but rather for a differing cognitive mode. This is the process-specificity position supported by two of the world's experts, Bogen and Sperry.[42] Both left and right have the capacity to generate new and efficient information processing strategies. Lundy, quoting from Dimond and Beaumont, says:

> ... the analogy is not to a single computer but to two computers sitting side by side, each interacting with the (outside) world, providing a surface on which information can be received, each proceeding with analysis of the information and checking off its functions against the other, ultimately linking and cross-comparing productions. [43]

Galyean takes up the idea that the half brains represent one symbolic interface of the other. In a simplified way she notes that the left brain represents reflection and cognition and the right represents inspiration and intuition. Then she writes: "Educational methodologies derived from brain research are still in the neophyte stage and should be treated as such".[44] The implication is that in presenting material in the classroom we, as educators, are being professionally challenged to take account of differing cognitive modes where appropriate and to put to work current understanding of how the brain works.

Another interesting angle from the scientists is in the general area of reinforcement. Gazzaniga notes that the idea of reinforcement, for instance, in Skinner's operant conditioning, is static and passive. The organism, in Skinner's view, has a store of responses and one comes to the fore as a result of external contingencies. This is the static, passive criticism. Looking at the work being done by Premack, Gazzaniga points out that the organism "is actively and continuously assigning values to all stimuli and, in that, it views response probabilities, which are generated by the organism, as key regulators of behaviour."[45] To avoid the negative response type conditioning, not generally found in teaching, a more positive approach seems to be along the lines of discussion, guided strategies, leading to more carefully considered hypotheses and their verification.

On the second level we may note some comments from Torrance and Bruner. For instance, Torrance points out that:

> Once creative ideas have been produced, they must be subjected to the tests of logic but such ideas do not occur as the result of logical processes. 46

Bruner, in much the same vein, states that

> ... the forging of metaphoric hunch into testable hypotheses goes on all the time. 47

The implication here is that creativity whether from the right or left is subject to verification. In the more popular literature one finds the view that 'creativity' is the prerogative of the right brain. None of the experts will support this entirely. Each hemisphere has its own mode and each can be creative but the acknowledgement of such creativity will depend upon agreed criteria. Thus we find the two cognitive modes being referred to as 'critical intelligence' and 'creative intelligence'.[48]

Again we find Edward de Bono talking about 'lateral' (left) and 'vertical' (right) intelligence.[49] In these observations there is clear reference to the distinct cognitive modes of each half brain. The evidence from the brain scientists has already substantiated this view.

The narrower definitions of creativity led to such views that 'creativity' and the traditional I.Q. tests were not in harmony because each hemisphere had its own special strength.[50] Traditional I.Q. tests were too linear, too verbal, too analytic and so were left hemisphere dominated. What is being suggested in the practical domain is that methods to improve psychological measures of hemispheric specialisation, continue to help us determine, in the case of persons learning, the preferred strategies and to allow us the knowledge to help develop alternative strategies.[51] Williamson and Hudspeth, dealing with students on engineering design, noted what they called 'left brain dependency' when the engineering students were faced with open-ended design projects. The students felt they were left without the support of a straight line of enquiry. So we find them asking such questions as:

> "I don't know how to solve this problem?"
> "I don't know what you want?"
> "Can't you just tell me the equation and
> eliminate all this theory?" 52

The ideal appears to be to allow for switching from one hemisphere to the other, the 'feel' and the 'check'. For these reasons well known experts such as Bogen, Gazzaniga and Torrance, suggest a move towards the strengths of the right brain in, for instance,guided discovery, nonverbal expression, open-ended problems and such like.[53] The obvious question appears to be: are our approaches in school work too left brain dependent, that is, too factual, too analytic, too streamlined? Do we challenge enough by requiring pupils to work it out for themselves, to consider possibilities, to ask why and how? We are not, of course, asking them to reinvent the wheel. But should we not reduce repetition and a too heavily emphasised convergent style of thinking? Redesigned curricula with less emphasis upon the right answer and a more tolerant attitude towards error might prove more beneficial in promoting a more genuinely critical intelligence. In the sophisticated technological world of today this critical intelligence is needed. Information is all too readily available. What we need is a judgement to decide on its relevance. Our Curriculum and Examinations Board may well be giving thought to the implications of our current understanding about human intellectual development which is being carried forward by much of the basic research so briefly noted in this paper. We owe it to ourselves and to our pupils to comb through the evidence to find more rewarding approaches to our work.

A comment from Betty Edwards - one of the quoted witnesses - is rather apt at this stage. It may be overdrawn but it is making a valid point:

> The right brain - the dreamer, the artificer, the artist - is lost in our school system and goes largely untaught... it is unlikely that we would find courses in imagination, in visualisation, in perceptual and spatial skills, in creativity as a separate subject, in intuition, in inventiveness. Yet educators value these skills and have apparently hoped that students would develop imagination, perception, and intuition as natural consequences of a training in verbal analytic skills. 54

From what has been said it is not too difficult to gauge the shape of popular comment: the school system overtrains the left at the expense of creativity,[55] both halves of the brain and indeed the whole child should be educated.[56] Myers is very critical of over generalisations arising out of the work on brain bisection and quotes with approval such articles as "Educating both halves of the Brain: Educational Breakthrough or Neuromythology."[57]

CONCLUSION

The general area of brain research has been gathering momentum over the past ten years. As the brain scientists continue their work of probing into the intricate functions of the human brain it is quite clear that there are implications for psychologists, educators, and teachers. To understand and to apply research findings to our educational work depends on how well we understand the neuropsychological and neurophysiological findings. Beyond that some critical reflective process would appear to be required.

From the evidence, normal brains are built to be challenged and seemingly act best when a difficult situation or problem calls upon the special strengths of each hemisphere. Without the challenge inattention and even boredom may set in. People respond better when their emotions are engaged and the situation is not regarded as overly threatening or anxiety producing. We all know that good teaching and good learning depend upon interest, attention, excitement. It is quite fascinating to find that the brain scientists regard these characteristics as providing the neural substrate for optimal learning.[58]

This type of research is opening up for us, as educators, a new and exciting avenue to explore. There would appear to be a challenge to the developing theoretical understanding of our profession and a challenge to our work with our students. Here is an avenue of some promise; it is not the only one but it is a timely one.

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HALF YOUR FUTURE? A DISCUSSION OF THE NOTION OF A COMMON EDUCATIONAL POLICY FOR EUROPE

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The Europe referred to in my title is the European Economic Community established by the Treaty of Rome in 1957, of which Ireland (along with the United Kingdom and Denmark) has been a member since 1972.

What I mean by policy cannot be quite so clearly stated. A policy could be loosely defined as a programme for common action; or, more precisely, in this context it might refer to an agreement by sovereign nations to bind themselves by treaty to work together to achieve certain declared supra-national purposes. In the EEC context such purposes may be achieved either (1) by means of inter-governmental agreements, whereby the national governments retain control themselves (e.g. the Statute of the European Schools), or (2) by establishing a Community competence for further action to be taken at Community level. In either case the decision becomes binding by treaty on all the member states but the second structure involves a greater surrender of power to the Community.

What I propose to do in this paper, however, is first to review progress to date and then to seek to answer the question: Is a common educational policy for the whole EEC emerging - or receding? Or could it be already here?

The following list of events illustrates some of the progress, in terms of both decisions and action, that has been made in the first post-war generation towards a "Europe of Education":

1949	College of Europe opened in Bruges.
1951	ECSC (European Coal and Steel Community) Treaty provided for Vocational Retraining (Art. 56).
1953	The first European School opened in Luxembourg.
1957	EEC Treaty provided for the Mutual Recognition of diplomas, and vocational training of workers (Art. 118) and farmers (Art. 41).
	Euratom treaty provided for establishment of a European University.
1969	European Parliament called for (1) Mutual Recognition of Degrees, and (2) a European Education Policy (3rd General Report, p. 423).
1971	Ministers for Education of 'the six' met for first time in a Community setting.
1973	New Directorate for Education and Training established within D.G. XII for Research Science and Education.
1974	Policy Documents on Education (Janne Report) issued by the Commission.
	Decision of Council of Ministers of Education to set up an Education Committee.
1975	European University Institute established at Florence.
	CEDEFOP (European Centre for Development of Vocational Training) set up.
1976	Education Ministers adopt Action Programme.
1977	Council of EC issued its first directive (on education of migrant workers' children).
1984	Nine European schools in 7 countries; enrolment 12,000 pupils.

BACKGROUND : THE TREATIES

Many of the major political decisions taken at supranational level in Europe since 1944 have had the common aim of achieving greater unity in this cradle of culture and cockpit of war that Europe has been historically. Despite setbacks, much progress has been made to date in the political, economic and social fields; and in the minds of many Europeans education must be a key element of political integration. But how much importance is attached to educational unification at present? Is it an issue at all? Or is it alternatively a raw nerve which must be treated so sensitively that some (e.g., the Danes) prefer not to talk about it? It seems to many that it must be tackled sooner or later; that a true Federation will not exist until we have a closer integration of our several separate systems of education; that the unity of nations sought will still not have its cornerstone until some considerable cohesion in this sphere is achieved.

Now the first point to be made clear is that the word education is not mentioned in the Treaty of Rome. This seemed to amount to a declaration that education was a matter that lay outside the competence of the Community even to discuss, and it was so interpreted. This somewhat legalistic view held for several years, and the Ministers of Education of the Six, as they then were, did not meet in council until November 1971. Nevertheless the treaty establishing the European Coal and Steel Community (1951) had provided for vocational retraining (Article 56); the EEC Treaty (Article 57) itself provided for the mutual recognition of qualifications, and freedom of establishment for self-employed workers; also for the vocational training of workers (Article 118) and farmers (Article 41); and, subject to certain conditions, for "any other matters not covered by the Treaty" (Article 235). For its part, the European Atomic Energy Commission Treaty (1957) provided for the establishment of an institution of university status. The early discussion on the recognition of qualifications issue ran into some difficulties however; they seem to have avoided all mention of teacher qualifications, for instance, and still seem to be far from grasping this particular nettle. Nevertheless the Treary of Rome, while confining itself primarily to economic affairs, was designed to set in motion an evolutionary process. It limited itself to "sketching out in general terms the policy lines to be pursued leaving it to the Community institutions . . . to work out the actual arrangements the Community is to establish". The Treaty itself would not pre-determine what these arrangements might be. And in 1972 the final declaration of the Paris Summit claimed that "Economic expansion, which is not an end in itself . . . must emerge in an improved quality of life as well as an improved standard" and again that "Special attention will be paid to non-material values and wealth" (Par. 3, Bull EC 10-1972).

DEADLOCK, ENQUIRY AND RECOMMENDATIONS

Gradually it became clear however, that certain areas of application of the Rome Treaty were inseparable from the need of an education policy of some sort. Awareness emerged that economic needs for training were inextricably linked with the education system in general - that work and training go hand in hand; also that educational and cultural matters on the one hand cannot be separated from economic and social matters on the other. By a decision of 19 July 1972 the Commission of the EEC set up within itself (a) a Working Party on Teaching and Education (under Mr. Mercereau and responsible to Mr. Spinelli); and (b) an Interdepartmental Working Party on the Co-ordination of Directorates-General concerned with questions of teaching and education. Once again, it seems, both talks on the equivalence of qualifications as well as proposals for active co-operation in the field of education became deadlocked.

A process of wide-ranging consultations was then undertaken by Professor Henri Janne at the behest of the Commission in 1972 so as to pinpoint for it the basic elements of an education policy at Community level. The resulting report (EEC Commission, 1973) makes very interesting reading relating as it does to the hopes and aspirations no less than the anxieties and apprehensions of many. Fear was voiced, mainly by Scandinavians, of a super-neocolonial European Community that would revive the old western European imperialism; apprehension was expressed by the British about the introduction of Community doctrine into the schools, with powers that would override those of the national governments. And side by side with these, there emerged shared anxiety over the cultural identity of Europe, the crisis of values, the alienation of many from the process of taking decisions which affect their lives; the artificial isolation of the school from the society it seeks to serve; the lack of mutual understanding among the EEC member states themselves, the role of schools in perpetuating this, and so on.

Nevertheless, a set of proposals on future policy did emerge, some of which are the following:

1 while scrupulously respecting national structures and traditions in education, it is advisable to promote a necessary harmonization between them. This should be done by means of permanent concerted action at all levels and through more and more educational exchanges;

2 promoting association with non-member countries, as well as international organisations (such as OECD

and UNESCO);

3 creating an "Educational and Cultural Committee" representing each of the European Community member states;

4 promoting a long-term, and gradual policy of harmonization based on concrete areas covered by the treaty, e.g. adult education, the new technologies of education, the mass media, and pre-primary education - in other words acting in a manner that would be compensatory and complementary to the national policies, with a particular emphasis on the training or re-training of personnel in such areas.

The Janne report did not, of course, represent Community policy. It does seem in retrospect to have marked a high tide of enthusiasm for the development of such a policy (cf. Gwyn, 1979) and it is interesting in itself as the only discussion document that might have provided a blueprint for such a plan. Several of its suggestions have in fact fallen on stony soil, and some of its cautions may have been given more heed than its positive proposals for action. The initial movement towards an education policy which the report represented, may, as Janne maintained, have been irreversible; this however gave no commitment to a definite time scale.

ACTION BY THE EDUCATION MINISTERS

A second step forward, following the presentation of the Janne Report in 1973, was the creation of a new portfolio (Directorate-General XII) for Research, Science and Education under Mr. Rolf Dahrendorf within the Commission. He soon presented the first pointers for action in education stressing that, while there was no intention of harmonizing school structures or syllabuses, priority must be given to a strategy or co-operation by means of a systematic exchange of information.

The education ministers decided at a meeting in 1974 to set up an education committee, and in 1976 they adopted an action programme. Among its main proposals were:

1 promoting closer relations between the educational systems in Europe;
2 compiling up-to-date documentation and statistics on education;
3 co-operation in the field of higher education;
4 promoting foreign language teaching;
5 achievement of equal opportunity for free access to all forms of education.

THE PRESENT BALANCE SHEET

What then is the present situation? I shall deal with this under two heads: (a) theoretical and (b) actual achievements. On the theoretical level, while there may still be disagreement on the precise extent of the power of the EEC in the sphere of education there seems to be general agreement as to its competence to act in this field. This said however it is relevant to note that when in 1979 the European Journal of Education sought contributions for a symposium to discuss the problem of a European education policy, the editor had to conclude in view of the nature of the articles contributed, that "a European policy in education is, in many respects still to be invented" (Fragniere, 1979). In his view the issues were not yet well enough defined to constitute even the basis of a constructive debate or development. Similarly Rhys Gwyn (1979) concluded in an article on a European policy for initial teacher education, that the situation presented a "tantalising blend of creative possibilities coupled with sound reasons for caution and restraint".

But there have been concrete achievements on the ground. These have concentrated on specific areas - so many in fact that a complete list of them would be impossible here. Some of the better known however are as follows:

1 EEC action in the area of transition from school to working life, whereby in 1981 alone 320,000 young persons benefitted from assistance for specific training programmes, and 400,000 from Community Social Fund aid to employers to create additional jobs;

2 a Community directive which obliged all member states to facilitate the initial reception of children of migrant workers by providing free tuition in one of the languages of the host country;

3 the member states must also educate the children of migrant nationals in the language and culture of their state of origin;

4 the work of CEDEFOP (the European Centre for the Development of Vocational Training) since its establishment in Berlin in 1975 has facilitated new levels of co-operation and information in vocational training and adult education;

5 an action programme in 1981 has resulted in pilot schemes and information exchange on the social integration of the disabled, not only at school, but also in vocational training and continuing education;

6 in the university sector there has been some relaxation of conditions of access and improved information on available opportunities. Besides,

by March 1984, 500 joint study programmes were taking place in 2,627 institutions (cf. E. Parlt. debate 3/84) subsidized by the Commission;

7 agreement has been reached on the mutual recognition of university qualifications of some 500,000 doctors as well as dentists and veterinary surgeons; some progress in removing barriers to freedom of movement in other professions is also reported (EC 13/84);

8 the establishment of an information network on education (Eurydice) now gives governments, politicians, teachers and the general public access to a vast range of data, facts and projects which would have been unimaginable in Europe 25 years ago. (Prior consultation by the compilers of Eurydice with university authorities would enhance the completeness of the information available.)

9 With reference to education at school level the main thrust of development has concentrated on:

(a) projects designed to prepare young people for working life. Three Irish projects in this network had half their costs paid by the European Community; these were the Spiral Project, the Early School Leavers' Project, and the Irish Foundation for Human Development Project in North Mayo;

(b) teacher training, especially in the foreign languages area. Stemming from the Resolution of the Council of Ministers in 1976, this is taking the form of recognition of study periods spent abroad; scholarships for prospective language teachers to study abroad; regular meetings between senior officials, teachers and foreign language experts; joint study programmes, and information exchange;

(c) technological change and social adjustment to new technologies with special reference to the training of teachers, the development of transferable software and hardware, and the consequences for the content of teaching and for research;

(d) sponsorship of research in many areas of education, e.g. in language teaching, in civics, in European affairs, and preservation of the environment, inter alia;

10 the final achievement to which I shall refer is the entirely practical one of directly establishing educational institutions.

The European University in Florence is now in its tenth year, while the European Schools, now nine in number, enrol about 12,000 students between them - and their European Baccalaureate enjoys a high status in universities from Ireland to Italy and indeed outside the European Community as well. These however are administered as a personnel facility and not by the Directorate General responsible for education as such, now DG V.

CONCLUSION

We have seen that, following an initial period of hesitation, the EEC authorities came to realise that a narrowly economic and legalistic interpretation of its treaties was insufficient, and that, while respecting fully the principle of subsidiarity, some machinery of co-ordination must be forged. We have also found that considerable dialogue on educational problems has developed in Europe since World War 2, while co-operation at various levels is also growing rapidly. These developments are taking place not only in the ambit of the EEC, but in many other overlapping contexts, e.g. the Nordic Council, the Council for Cultural Co-operation of the Council of Europe, UNESCO, the OECD with its Centre for Educational Research and Information; the Franco-German and other inter-state cultural agreements; the Franco-German Youth Organization, and many other bodies. In some respects indeed the contribution of some of these bodies to the creation of a common education policy - if it comes about - may eventually prove to have been greater than that of the EEC itself. What these bodies share in common might be termed a transactional approach, i.e. the notion that the more contacts we have the better.

No doubt the dynamism underlying all these movements has in part stemmed from the pressure to learn from the tragic lessons of European history. The growing awareness that we face common social, economic and personal challenges is another force, and one which lends urgency to the task of unification. Besides, politically, the replacement of military force by negotiation as equal partners, is surely the greatest achievement of the EEC to date. We are all minorities now. Besides, the common challenges of massive youth unemployment, social inequalities and economic underdevelopment, the continuing plight of Third World countries, as well as the continuing strife in our own island should goad us into realising how little common understanding has been achieved, and therefore how great is the common task for education that lies ahead. The potential gains of greater unity could therefore be immense; and already the stimulus of existing direct contacts is greater than we often realise.

Nevertheless, immense barriers to progress remain. Whereas European education was indeed unified in its origins and for long periods in the past, its history has been marked by successive struggles between linguistic, religious and national groups; by linguistic and cultural differences, by competing pressures for uniformity and diversity, for local autonomy and metropolitan control. To-day it could seem as though the need to cherish minority cultures, to accept cultural diversity and pluralism and to respect academic freedom itself - all of them creations of European education - could retard the very progress of its re-unification; yet disregard of any of them would be too high a price to pay for early results.

We have seen that the political will in the EEC to effect educational integration has waxed and waned; it has moved from a federalist orientation in the 1960s and early '70s to a more functional and gradualist one. The immense difficulty of the task has been realised. The politicians are pragmatically moving forward one step at a time. Bridges are being built between education and training, and between both and the world of work outside. Education systems throughout Europe are yet again undertaking self-analysis, are desperately seeking enlightenment from each other's experience - and perhaps finding some. This greater willingness to share information is revealing the very large identity of national problems that we face in common. It might be feared now that the achievement of mutual recognition of qualifications would dictate identical content of courses at third level, percolating down to second and even primary schooling and this fear may have some justification. But while changing attitudes among policy-makers are already seen as revolutionary by some, a unified common policy at compulsory school level is still a long way off and can only come about with the consent of all parties.

But besides being worthy of development in itself, education is frequently seen as an economic resource, and it is just conceivable that the prospect of a Europe that found itself being outclassed economically by both

Japan and the U.S.A., might find the impetus to hasten its step, even in education. It is interesting to note that this precise point was made by four different speakers in the European Parliament's debate on higher education in March 1984. Economic necessity could prove to be the lever that impels us to work more closely, if only to hang together for fear of hanging apart. Lastly, it may be that sheer size of resources has enabled American technology to superimpose American culture so markedly on western Europe in recent generations. If, as the Spinelli Report suggests, Europe is now in danger of becoming an outpost of American culture, only the combined intellectual, cultural and educational resources of all our countries acting together may suffice to turn back that relentless tide.

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THE EFFECT OF STANDARDIZED TEST INFORMATION ON TEACHERS' ASSESSMENT OF ABILITY IN THEIR CLASSES

Peter Archer and Patricia J. Fontes

ABSTRACT

The responses of three groups of teachers to a rating task in which they were asked to indicate how many of their pupils were "bright", "above average", "below average" and "dull" were compared. In two of the groups, teachers had been provided with test information based on performance on nationally standardized ability and attainment tests. In the third group tests had been administered but no results were provided.

No differences between the groups were found in terms of the extent to which teacher ratings of ability levels correspond with mean ability test scores. In addition, teachers, irrespective of the group to which they belonged, were found to display a tendency to place more pupils in the above average categories than the below average categories. Finally, no support was found for an hypothesis which suggested that test information would differentially affect the ratings of teachers of classes with pupils who were typical and untypical with respect to age.

The fact that the correlation between mean ratings and mean test scores were found to be fairly high in all three groups (they ranged from .51 to .60) suggests a reason for the failure of test information to impact on teachers' judgements. The degree of agreement between teachers and tests that the correlations reveal means that there is less scope for a convergence of ratings on tests to occur than might otherwise be the case.

INTRODUCTION

The extent to which information from standardized tests affects the way teachers evaluate their pupils has been the subject of a considerable body of research over the past twenty years. Virtually all of this research has been concerned with an examination of a single question, namely, do teachers alter their opinions of individual pupils when presented with information which indicates a level of performance higher or lower than the teacher's opinion of the pupil?

In a previous paper to this Association (Archer, 1980a) it was argued that the answer to this question was 'No', and that this was the case whether one examined studies in which teachers are interviewed about their reactions to previously acquired test information (Jackson, 1968; Leiter, 1976; Salmon-Cox, 1980) or experimental studies in which the ratings of teachers who have received test information are compared with those of teachers who have not (Archer, 1980b; Beggs, Meyer and Lewis, 1972; Pedulla, 1976).

Since Archer's (1980a) paper a major investigation of the impact of test information on teachers' ratings was published in the final report of the Irish study on the consequences of educational testing (Kellaghan, Madaus and Airasian, 1982). Kellaghan et al. addressed the issue in two ways. Firstly they compared changes in teachers' ratings of intelligence and achievement from the beginning to the end of a school year across five groups of teachers, some of whom received test information in the intervening period and some of whom received no information. Although to a statistically significant extent change in ratings was more frequent among teachers who received test information, the effect, in absolute terms, was slight. The authors estimate that approximately 4% of upward revisions of ratings could be attributed to the impact of test information. No similar trend in relation to downward changes of opinion was observed. (Salmon-Cox, 1981, noted the same small tendency for teachers to make more positive than negative changes of opinion.)

The Irish study also included a series of cross-lagged panel analyses which did provide evidence for an effect of quite massive proportions. Figures of 10, 15 and even 20% of the variance are presented as indicators of the size of the effect. The variance in question is a reduced variance, the longitudinal relationship between ratings and tests having been partialled out. The authors argue that the reduced variance is the correct "total" against which to assess the size of an expectancy effect, since the effect cannot manifest itself when ratings and test scores coincide, a point to which we shall return later.

Because of the fact that the cross-lagged analysis produced results which are very different from those in every other study examined and because the cross-lagged panel technique has been shown to be very suspect (Rogossa, 1980), we are inclined to reaffirm the conclusion of the earlier paper (Archer, 1980a) and state that test information rarely, if ever, causes teachers to change their ratings of individual pupils.

The absence of an effect may be explained by a number of factors. The first of these is the fact that teachers' ratings of pupils and pupils' scores on standardized tests will generally tend to be in very close agreement with each other. Reviewing a series of studies in which correlation coefficients between tests and ratings were computed, Archer (1980b) noted that such coefficients tend to fall in the range of .55 to .65. This is close to the maximum that one can expect from what are essentially indices of concurrent validity (cf. Cronbach, 1961). In addition it has been argued (Archer, 1980b) that research in this area has tended to underestimate the level of agreement between tests and teachers' judgments by using the pupil rather than the teacher as the unit of analysis and by failing to take account of the fact that teachers' conceptualizations of ability and achievement are not necessarily the same as those on which tests are based.

Research on the relationship between tests and ratings therefore provides some basis for understanding why results of the former tend not to cause the latter to change insofar as it is clear that only a small proportion of test scores will indicate a level of performance different from that which the teacher would expect in the absence of test information.

Other reasons for the failure of test information to affect teachers' ratings emerged in Archer's (1980a) paper to this Association. That paper contained an account of a study in which teachers were interviewed about intelligence test results which they found surprising in the sense that there were discrepancies between the result and the teacher's opinion. This study revealed that test scores, which appeared on the basis of other evidence to be discrepant, were only perceived as such slightly more often than chance alone would predict. Thus, in a large proportion of cases where one expects test scores to have an effect the teachers did not have any reason to revise their opinions since they did not perceive the test results as different from these opinions. Furthermore, where discrepancies were perceived, the teachers were able to find legitimate reasons for the discrepancy (for example, nervousness, illness and overconscientiousness) when the pupil did worse on the test than the teacher expected, and guessing and cheating where the pupil did better than expected. Since in the majority of cases the explanations offered by teachers implied that the test score was inaccurate, a change of opinion was not seen as necessary. It should be noted that many of the explanations presented by teachers were found by the interviewer to be entirely convincing. In other words it was felt that in many cases the teacher rather than the test provided the more accurate measure of the pupil's intelligence. This was particularly true of discrepancies where the test score was reported as lower than expected (such discrepancies represented 67% of all discrepancies nominated by teachers).

Research on the impact of test information has been criticised on the grounds that it has focussed exclusively on whether a convergence of teacher ratings on test performance occurs and that this kind of preoccupation with a single question betrays an unduly simplistic view of the way teachers think about their pupils (Egan and Archer, in press). In this paper we examine some aspects of teachers' perceptions of their pupils which it might be argued are more susceptible to the influence of exposure to standardized test information than the level of agreement of these ratings with corresponding test scores. Three separate hypotheses will be investigated.

The first hypothesis derives from the fact that standardized test results can convey information not just about the relative performance of pupils within a class but also about the performance of the class as a whole relative to other classes. A teacher reading test results for his or her class may well find that they produce a rank ordering of pupils which is identical with a rank ordering based on his or her own assessments. However, the teacher may nevertheless find that the norm-referenced scores indicate that the general level of performance compared to that of the standardization sample is higher or lower than he or she thought. In this kind of situation, an effect of the information may be to bring teachers' judgments of the ability level of their class more closely into line with the level indicated by test scores.

The second hypothesis is concerned with whether the provision of test information will reverse a tendency noted in a number of studies (Archer, 1980b; Kellaghan, McNamara and Neuman, 1969; Egan and Archer, in press) for teachers to produce asymmetrical distributions of ratings. Specifically it has been found that on a five-point rating scale the top two categories tend to contain about 50% more observations than the bottom two categories (Egan and Archer, in press). It seems reasonable to suggest that sets of test scores which are constructed in such a way as to produce equal numbers of below average and above average performers would over a period of time cause teachers to revise the way they evaluate their pupils and as a result produce more symmetrical distributions of ratings.

The final hypothesis with which we will deal is one that has a long history in the literature of educational testing; namely, that the availability of test information will correct a tendency for teachers to overestimate the intelligence of children who are in classes with pupils younger than themselves and underestimate the intelligence of children in classes with pupils older than themselves (Terman, 1919; Varner, 1922, 1923; Hubbard and Flesher, 1953). If age-normed test scores have this correcting effect, we should expect to observe it in a stronger form in classes with more young and/or more old pupils than in classes which have a narrower and more typical range of ages.

METHOD

Sample

In the autumn of 1973, as part of a longitudinal study of the effects of standardized testing, a stratified random sample of Irish national schools (excluding private, Protestant, special and one-teacher schools) was selected (Kellaghan, Madaus and Airasian, 1982). The stratifying characteristics were location (city, town, rural) and gender composition (boys, girls, mixed). Schools from the city boys', city girls', town boys' and town girls' strata of that sample which had at least one class containing only sixth standard pupils were, in the spring of 1977, asked to participate in a study of sixth-class teachers' beliefs and practices; there were 88 such schools in the sample at that time. The teaching beliefs and practices questionnaire, one question from which forms the basis of the present investigation, was completed by all of the sixth-class-only teachers in 76 of these schools and by at least one teacher in nine of the schools, a total of 164 teachers (Burke and Fontes, in preparation).

The effective sample size in the present investigation was substantially reduced from that in the Burke and Fontes study for several reasons: 76 teachers had not administered to their classes the test of verbal ability, the scores on which are the other critical variable in this study (62 of these having been in a group of schools which were not asked to administer the test; the remainder having failed to do so); 20 teachers had a mismatch of more than 10% in the number of pupils they tested and the number they rated in the questionnaire; and three teachers did not respond to the pupil ability rating question although they had completed other parts of the questionnaire. These losses, along with the addition of a single teacher from a mixed town school which had been a girls' town school at the original sample selection time, result in the representation of only 66 teachers in the present study. Their distribution over type of school and receipt/non-receipt of test results is shown in Table 1. It will be noted that the school types are not equally represented in the three conditions. Town girls' schools are over-

TABLE 1

CHARACTERISTICS OF THE SCHOOL SAMPLE AND OF THE RESPONDENTS

School type	Eligible schools	Schools with full participation	Schools with partial participation	Total teacher returns
No results				
City boys	4	0	2	3
City girls	3	2	0	2
Town boys	5	2	1	4
Town girls[1]	5	3	2	8
Total	17	7	5	17
Norm-referenced results				
City boys	4	0	4	9
City girls	6	2	1	7
Town boys	4	2	2	5
Town girls	4	1	2	3
Total	18	5	9	24
Norm- and criterion-referenced results				
City boys	5	1	2	6
City girls	4	0	4	10
Town boys	5	2	2	4
Town girls	5	2	3	5
Total	19	5	11	25

[1] Including one school which became mixed after selection

represented in the norm-referenced condition and city girls' schools are over-represented in the norm- and criterion-referenced condition.

Instruments

The questionnaire on teaching beliefs and practices had seven sections: general information, classroom organization, discipline, curriculum organization, teaching aims, educational issues, and the effects of teaching methods. One set of responses from the general information section was used in this study: the numbers of pupils in the class who were described by the teacher as being "very bright", "bright", "average", "below average", or "dull".

The test which was used as a measure of verbal ability was the Drumcondra Verbal Reasoning Test (DVRT) (Gorman, 1968). It contains 110 items measuring a variety of verbal skills and has age norms, with a mean of 100 and a standard deviation of 15 points, based on an Irish sample for children between 10 years 0 months and 12 years 11 months of age. A re-norming of the test was carried out in 1974 as part of the study on the effects of standardized testing; these norms which cover the ages from 9 years 0 months to 13 years 11 months were used in reporting results to teachers in the course of that study and in analyses in the present study.

Procedures

In the autumn of 1976 the Drumcondra Verbal Reasoning Test was administered by the teachers in this study to their sixth-class pupils, along with a battery of standardized attainment tests. Some weeks later teachers in the norm-referenced and in the norm- and criterion-referenced school groups received reports on the test performance of each pupil tested. The norm-referenced results consisted of raw scores on attainment tests only and of standard scores and percentile rank equivalents for all tests taken; the criterion-referenced results given in addition consisted of a breakdown of pupil performance on skill categories of items in the attainment tests only.

The vast majority of the pupils in all three groups had had exactly the same experience of testing and of results or no results in the previous autumn when they were in fifth class. Two years previously, when they were in third class, they had had an almost identical experience, the only difference being that the Otis Lennon Mental Ability Test was used instead of the Drumcondra Verbal Reasoning Test. In the intervening year, when these pupils were in fourth class, only those in the norm-referenced results group had been tested, with the same types of tests used in fifth and sixth class, including the DVRT. Following each of these testing experiences, their teachers of that year had either received no report of results, received norm-referenced reports only, or received criterion-referenced results in addition if the pupils were in fifth or sixth class.

Toward the end of the 1976-77 school year the teaching beliefs and practices questionnaire was given to each of the teachers by the field worker responsible for that school. With the exception of a very small number of questionnaires left at the school for later completion each questionnaire was filled in by the teacher and collected by the field worker in the course of his one-day visit to the school.

Treatment of the data

The unit of analysis in this investigation was the teacher and his or her class. The pupil ability test data and the pupil ages in months as of 15 October 1976 were aggregated to teacher level, the test data in both raw score and standard score (age norms) form. Each teacher was thus assigned seven values - the mean and the standard deviation of the ages of the pupils in the class, the mean and standard deviation of the raw scores and the mean and the standard deviation of the standard scores of the pupils in the class along with the number of pupils tested and from whose scores the means and standard deviations were calculated. Each teacher record also included the information about school type and the numbers of pupils assigned to each of the categories of ability in the questionnaire; these numbers were converted to percentages of the total number of pupils in the class to allow comparisons across classes. The numbers of pupils in each ability category were also used to calculate a class mean rating by assigning a value of 5 to the rating of "very bright", 4 to "bright", 3 to "average", 2 to "below average", and 1 to "dull" and computing the mean in the usual way.

RESULTS

Before proceeding with the results of analyses related to our three hypotheses it was necessary to test the comparability of the three results conditions at the beginning of the 1976-77 school year in terms of age and verbal ability.[1]

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[1] Because of the imbalance of types of school across results conditions we thought it necessary to test the comparability of these as well. No significant differences in age, ability raw score or ability ratings were found for classes in the four categories of school type. The ability test mean of 76.2 in city boys' schools exceeded those of the other school types by about 6 raw score points but this difference did not quite achieve statistical significance (p = .053).

Although the random assignment of schools to the three results conditions should have assured that there were no significant differences between them at the commencement of the larger study in 1973-74, we were conscious of the fact that by the time of the present study there had been three years of differential treatment and a certain amount of differential dropout and that therefore the initial comparability might have broken down.

Table 2 contains comparisons of the three groups in terms of average age of the constituent classes, average DVRT raw score and average DVRT standard score. There is nothing in Table 2 to suggest that the feared erosion

TABLE 2

ANALYSES OF VARIANCE : MEAN AGES AND MEAN ABILITY RAW SCORES AND STANDARD SCORES ACROSS SIXTH CLASSES IN THREE TEST RESULTS CONDITIONS

	N	Ages		Raw scores		Standard scores	
		M	SD	M	SD	M	SD
No results	17	143.69	2.68	70.84	7.55	105.06	5.78
Norm-referenced results	24	142.19	2.48	71.45	7.87	105.97	6.02
Norm- and criterion-referenced results	25	143.31	3.48	72.60	8.31	106.35	6.69
Tests of significance							
Mean square		13.1106		17.1511		8.6091	
df		2		2		2	
F		1.512		.270		.222	
P		N.S.		N.S.		N.S.	

of comparability of groups over time occurred, i.e. there are no significant inter-group differences in age or measured verbal ability. However, a new problem is suggested by the data in Table 2 in that the average DVRT standard score is, in the case of all three groups, substantially higher than the figure of 100 which one would expect on the basis of the standardization procedure. In other words the classes that provided data for the present study were, in general, performing at a level which was 5 to 6 standard score points above the mean for the standardization sample. The implications of this problem will be examined later.

Our first hypothesis, that the receipt of norm-referenced standardized test information about the verbal ability of their pupils would lead to a closer correspondence between teachers' judgments of the overall ability of their classes and the tested level of ability of their classes, was tested in two ways. Firstly, in spite of the fact that there were not significant differences between the groups in terms of DVRT performance (see Table 2), it was felt that some attempt should be made to control for measured verbal ability in comparing ratings across the three groups. Accordingly, an analysis of covariance was performed with the mean class rating as the dependent variable and the mean DVRT standard score as the covariate This analysis was directed at the question of whether there was a systematic source of difference in the mean class ratings over and above the measured ability of the class; if such were found, it could be attributable to the receipt of the test information - the dimension along which we know the groups to differ.

The results of the analysis of covariance are presented in Table 3. They show that the small differences which appear between the mean ability ratings of classes in the three groups, are not related to differences in the receipt

TABLE 3

ANALYSIS OF COVARIANCE : MEAN ABILITY RATINGS ACROSS SIXTH CLASSES IN THREE TEST RESULTS CONDITIONS, CONTROLLING FOR MEAN ABILITY TEST STANDARD SCORES

	N	Mean	Standard Deviation
No results	17	3.16	.43
Norm-referenced results	24	3.22	.42
Norm- and criterion-referenced results	25	3.26	.32

Sources of variation	MS	df	F	P
Test scores	2.883	1	27.148	< .001
Results condition	.013	2	.127	N.S.
Explained	.970	3	9.134	< .001
Residual	.106	62		
Total	.146	65		

of results: the F-ratio for "Results condition" is not large enough to be significant. It is the strong relationship between the test scores and the ratings that accounts for or explains the rating differences we observe ($F = 27.148$; $p < .001$). This relationship between the mean test scores and the mean ratings suggests another way of examining our first hypothesis: by comparison of the correlation between mean ratings and mean test scores across the three groups. If the hypothesised effect had occurred (i.e. if teachers who received results gave ratings closer to the test scores) one would expect to find higher correlations between ratings and tests in the results conditions than in the no results condition. The relevant correlations appear in Table 4, from which two things are clear.

TABLE 4

CORRELATIONS BETWEEN MEAN ABILITY RATINGS AND MEAN ABILITY TEST STANDARD SCORES IN SIXTH CLASSES IN THREE TEST RESULTS CONDITIONS

	N	r	p
No results	17	.58	< .01
Norm-referenced results	24	.51	< .01
Norm- and criterion-referenced results	25	.60	< .001

Firstly, the previous finding of no support for our hypothesis is confirmed insofar as the correlations for the three groups are almost identical.

Secondly, Table 4 provides a possible partial explanation for the lack of an effect. Just as in the studies of individual ratings reviewed earlier there is here evidence of a substantial relationship between teacher judgments and standardized test scores. Interestingly, the correlations reported are of roughly the same order of magnitude as those for individual ratings (which as stated in the introduction tended to fall in the range .55 to .65). The argument in the introduction, however, that the observed correlations were as high as they could be does not apply to the figures in Table 4. In the latter case we are dealing with an analysis in which measurement error associated with variation between pupils has been reduced because we are using an aggregated variable in the case of the test score and a variable which only indirectly refers to individual pupils in the case of the teacher judgment. Nevertheless, the correlations in Table 4 do indicate a sensitivity on the part of teachers to variations in ability levels of classes as measured by tests like the DVRT. Such being the case, the potential for test information to have an impact in this area is reduced.

Our second hypothesis, that teachers who have been exposed to and schooled in the interpretation of standardized, norm-referenced scores, will produce more symmetrically-shaped ratings of ability than those who have not, is not completely independent of the first, since changes in the shape of distribution will often change its mean as well. Stated separately, however, it gives the chance to demonstrate and test more directly an interesting aspect of teacher ratings. The statistical test used in this case is the multivariate analysis of variance which determines whether any significant difference exists between groups in the data represented in a set of dependent variables, here the percentages of pupils assigned to the five categories of ability by teachers in each results group.

Before presenting results of the multivariate analysis of variance it may be useful to point out that a simple breakdown of the five rating categories based on direct counts of pupils assigned by their teachers to these five categories revealed a pattern very similar to that noted in the Egan and Archer (in press) study cited earlier. Out of the total of 2,419 pupils with which this study is concerned a little over 40% were assigned to the very bright or above average categories while only 24% were assigned to the below average or dull categories. A similar breakdown done separately for each of the three conditions yielded no obvious deviation from the general pattern.

It seems clear, therefore, that the tendency to produce skewed distributions noted in earlier studies is evident among teachers in the present study. It also seems likely that our hypothesis that this tendency will be less marked in the conditions in which test information is provided will not be supported. That this is, in fact, the case is confirmed by Table 5, which contains the results of the multivariate analysis of variance. The very small F-ratio shows that none of the differences we observe - e.g. between 17% and 13% in the "very bright" category or between 10% and 6% in the "dull" category - are in fact large enough, considered together, to be significant; they

TABLE 5

MULTIVARIATE ANALYSIS OF VARIANCE : PERCENTAGES OF PUPILS IN FIVE ABILITY CATEGORIES ACROSS SIXTH CLASSES IN THREE TEST RESULT CONDITIONS

		%	%	%	%	%
		very bright	bright	average	below average	dull
No results	M	13.41	24.82	37.18	14.18	10.41
	SD	8.02	15.05	11.95	7.93	9.98
Norm-referenced results	M	17.08	23.79	32.25	17.88	9.21
	SD	10.97	11.90	12.90	12.32	7.79
Norm- and criterion-referenced results	M	15.48	24.72	36.76	17.00	6.36
	SD	8.00	9.04	10.04	8.52	6.14

Test of effect of results condition

Wilks lambda	.84
approx. F	1.04
df	10,118
P	N.S.

appear to be due only to chance variations. Thus, there is nothing in Table 5 that would support the hypothesis that test information exercises a corrective influence in relation to a tendency for teachers to regard considerably more pupils as being above average than below average.

Apart from the difficulties of interpretation that always exist when an hypothesised difference is not found (whether one can accept a null hypothesis or not) there is the additional problem here of the surprisingly good performance on the DVRT of pupils in the present study compared with the performance of the standardization sample (see Table 2). What this difference between the present sample and the standardization sample is likely to mean is that many of the teachers who were presented with DVRT standard scores were being given information which actually indicated that more of their pupils were above average than below average in terms of verbal ability. This might well be thought to confirm rather than correct any tendency the teacher might have had to produced skewed distributions of ratings. This point will be discussed more fully later.

The final hypothesis to be tested here concerns the possible differential impact of test information in classes which vary with respect to the distribution of age within them. The hypothesis is based on the reasoning that the potential for norm-referenced test scores to affect teachers' ratings over and above their rank ordering of pupils within a class is greatest in relation to pupils who are markedly older or younger than their classmates if, as has been suggested in the literature, teachers tend to overlook differences in the ages of children when evaluating their intelligence.

To test this hypothesis a separate analysis was carried out comparing teachers within the results group who had classes with typical age range for sixth class and those who had classes which were either unusually young or unusually old. The two groups to be compared in this analysis were defined in the following way: means and standard deviations of class mean ages in months were calculated and a class was regarded as being typical or atypical depending on whether its mean age fell within one standard deviation of the mean or not. This analysis tested whether the correlation between mean DVRT standard score and mean class rating, controlling for mean DVRT raw score, was greater for classes with many under- and over-age children than for the remaining classes. The relevant partial correlations and the numbers on which they are based are presented in Table 6.

TABLE 6

PARTIAL CORRELATION BETWEEN MEAN ABILITY RATINGS AND MEAN ABILITY STANDARD SCORES, CONTROLLING FOR MEAN ABILITY RAW SCORES, IN CLASSES RECEIVING TEST RESULTS AND HAVING PUPILS OF TYPICAL* OR OF DEVIANT+ AGES

	N	Partial r	df	*p*
Classes with pupils of typical ages	35	.28	32	.052
Classes with pupils of deviant ages	14	-.03	11	N.S.

* Mean ages between 140.03 and 145.97 (i.e. 143 ± 2.97)

+ Mean ages below 140.3 or above 145.97

In order for us to be able to accept our hypothesis, both partial correlations and the difference between them would have to be statistically significant. In the event neither partial correlation differed significantly from zero so that a test of the significance of the difference between the correlations would be meaningless. Just as in the previous two cases we are unable to find support in the data for our third hypothesis. In fact it may be noted in passing that the partial correlation for the classes with typical age ranges is higher though not significantly so than the one for the atypical classes. This is the reverse of what one would expect under the hypothesis.

DISCUSSION

In the present study no support was found for any of the three hypotheses tested. Teachers who had been provided with norm-referenced DVRT scores did not produce mean ability ratings that corresponded more closely with mean test scores than did the ratings of teachers who had not received test scores. The distribution of ratings among teachers who had received test information was no less negatively skewed than the distributions of teachers who did not have access to test information. Finally, no differences were found among teachers who had been given results between those with typical and untypical age ranges in their classes in terms of the size of the relationship between ratings and tests.

The findings of the present study then are very much in line with the findings of studies of the effect of test information on other aspects of teacher ratings reviewed in the introduction. However, it must be acknowledged that the drawing of a conclusion that test information has no impact in the areas examined in the present study would not be entirely warranted. Militating against this conclusion is the fact that the independent variable (the provision of norm-referenced test scores) did not operate in the autumn of 1976 with these classes receiving results as one might have expected: pupils in the present sample performed considerably better on the DVRT than had pupils in the standardization sample in early 1974. The test results these teachers received indicated that their classes were a bit "above average" (with means of about 106) and that considerably more than 50% of pupils had standard scores greater than 100, i.e. were above average in terms of verbal ability. This problem was pointed out in relation to the findings in this paper on the second hypothesis, where it was argued that the test information might be reinforcing rather than correcting a tendency among teachers to regard a disproportionate number of pupils as being above average. The extent to which this was happening, of course, also reduced the possibility of the first hypothesis being supported for reasons given earlier. In addition it seems unlikely that, given the absence of an overall effect of test information on ratings in terms of averages and distributions, an effect would emerge among that group of teachers with classes in which the pupil ages deviated from the "norm" for sixth classes (our third hypothesis). Indeed it may seem that a class level analysis, as was done in the present study, was not an appropriate way to identify the phenomenon in question. A further study using the pupil rather than the class as the unit of analysis would be useful in this regard.

Why pupils in the present study should have done so much better on the DVRT than pupils in the standardization sample is not entirely clear. There is undoubtedly a practice effect operating due to the fact that most pupils in the present study would have taken the DVRT on a number of occasions previously. In the report of the effects of testing study, Kellaghan, Madaus and Airasian (1982) noted that practice effects were more likely to occur in relation to tests with what might be regarded as unconventional formats (e.g. ability tests and multiple-choice achievement tests in areas like punctuation, capitalization and language usage) than in relation to straightforward achievement tests like reading and mathematics. In the case of the DVRT it has not been possible to quantify how much of the observed improvement in performance might be due to a practice effect and how much might be due to an increase in the capacity for handling or scoring well on tests of verbal ability among the school-going population. There is ample evidence that a substantial rise in verbal ability test scores had occurred between the original standardization of the DVRT in 1967 and the commencement of the effects of testing study in 1973; this was one of the compelling reasons for the restandardization carried out in the study. It is conceivable that this upward trend was maintained at least up to the 1976-77 school year in which the present study took place.

So far in discussing our results we have referred only to the impact of the provision of DVRT scores in the autumn of 1976. The entire context of test information for pupils, teachers and schools in the results conditions, however, involved more than this single intervention. Not only were the vast majority of the pupils taking the DVRT for the third time but norm-referenced results for both prior testings had been sent to teachers in the results schools, so that scores for these pupils when they were in fourth class and fifth class were known. These scores were more "normally" distributed; in fact fourth class pupils in the autumn of 1976 had an "average" score below 100 (96.3) and fifth class pupils had only a slightly superior mean (102.4). If the earlier scores were accessible to teachers in sixth class (some of these might even have taught the same pupils in previous years), a possible corrective to the latest, somewhat inflated score might have operated. Teachers also had access to norm-referenced attainment test scores which were not as subject to practice effects as the ability test. The information from the attainment tests would have indicated that pupils were more "average" in terms of reading, mathematics and Irish than they were in terms of verbal ability. In short, the independent variable in this study is not merely the autumn 1976 ability test results; it is the entire regimen of tests and results from them that characterized the school experience of these pupils from third to sixth class. Apparently, this entire complex of information - most of which ought to have created the impression that most pupils are average (score near 100) and that about as many are above average (e.g. score above 115) as are below average (e.g. score below 85) - did not result in sixth class teachers in these schools making more precise judgments of their classes' ability than could teachers who had never received results of their pupils' test performance.

It remains true, nevertheless, that the most proximate information, and information which we know to have come to the hands of these sixth class teachers, identified as an ability test score was the autumn 1976 DVRT score which would have operated either very weakly to oppose, or even in such a way as to confirm, the established tendency of teachers to over-assign pupils to above average categories of performance. The fact that this tendency is present among no-results teachers indicates at least that the inflated autumn 1976 DVRT scores cannot be thought to have themselves created in teachers who did receive them the idea of the way ability is distributed.

In the event we can only speculate about whether the first two of our three hypotheses would have been more likely to be supported if the average DVRT score in our sample had been closer to the value of 100 that is expected.

In addition we cannot be sure that effects would not have emerged if the over- and under-representation of certain school types across results conditions had not occurred (see footnote 1). Nevertheless it seems extremely unlikely that even in ideal circumstances the effect of test information if found would have been large. This would appear to be a reasonable conclusion given the degree of correspondence, as measured by correlation coefficients between mean ability ratings and mean ability test scores, which we found. This degree of correspondence lessens, as we said, the potential for test information to impact on teachers' ratings.

A series of interesting questions arises as to how the ratings of teachers in the no-results condition reflect as accurately as they do differences among classes in terms of average test scores. While it is not difficult to postulate the kinds of cognitive processes which provide teachers with cues which enable them to make judgments of the relative abilities of pupils within a given class, the mechanisms by which a teacher can judge the position of his or her class relative to other classes across the country is not at all clear. Issues for future research in this area might usefully include an investigation of whether experienced teachers are more sensitive to differences between classes than more recently qualified teachers. In passing it may be noted that if teaching experience is related to the ability of teachers to make judgments about the relative standing of their classes then this is more likely to be a factor in sixth class than elsewhere. It is generally accepted that many schools pursue a policy of assigning the most experienced teachers to senior classes. The presence or absence of streaming in a school is another factor that merits attention.

One possible explanation that suggests itself is that the teachers who administered the DVRT, irrespective of whether they were subsequently given results or not, had access to information which would be of assistance in making judgments about the performance of their pupils relative to sixth class pupils in general. Inspection of the type and difficulty level of items on the test, together with observation of the performance of pupils while actually completing the test, might prove helpful in this respect. Testing this possibility, using the data set created for the present study, was not feasible. However, the authors have recently been able to conduct an analysis which throws some light on the issue.

In the original Burke and Fontes study the questionnaire was completed by a group of teachers who had, at the time, had no known contact with the DVRT but who subsequently administered the test to their classes. It was possible therefore to calculate the correlation between the mean ability ratings and mean test scores for this ("no prior contact with the test") condition. If more exposure to the contents of a test and/or observation of pupils taking a test is an important factor in the accuracy of teacher ratings one would expect to find that the correlation between rating and test would be considerably lower in the no prior contact condition than the comparable correlations in the other conditions. In fact our analyses indicate that the reverse was the case - the observed correlation for the new group of teachers being in excess of .8. We can offer no explanation of why this group of teachers seem to be more sensitive to ability variations among classes than others. However, the fact that the correlation is so high does seem to rule out the possibility that the sensitivity of teachers to ability variations noted in the present study is somehow test related.

In conclusion, it should be noted that the present study was restricted in two ways that have not yet been mentioned. Firstly, it was concerned with pupils and teachers at one level of the primary school (sixth class). It may be that effects of test information would have emerged if pupils and teachers at other levels had been studied. At sixth class, as we said earlier, teachers are likely to be more experienced than their counterparts in other classes. In addition sixth-class pupils are usually better known to their teachers than younger pupils. Secondly, the testing and subsequent provision of information took place in an experimental context. As such only a very small proportion of schools were involved and nothing of very much consequence for pupils or teachers depended on the results. If testing was more widespread and if test results were being used as a basis for important decisions then teachers might be inclined to take them more seriously in arriving at opinions of pupils and classes.

In spite of the various reservations that have been raised here, the results of the present study are very much in line with those from previous research in suggesting that informal evaluative processes of teachers are not radically altered by the provision of standardized test information.

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THE MARINO GRADED WORD READING SCALE AT THIRD LEVEL : SOME INSIGHTS

Eamonn Ó Baiolláin

SUMMARY

The Marino Graded Word Reading Scale, age level 12 upwards, was included in a battery of tests with the purpose of investigating the importance of the reading factor in the Home Economics Colleges of Education in the Republic of Ireland with regard to selection of entrants and prediction of study success. The scale was administered according to a phonetic marking scheme. The paper focuses on the performance of the Marino Scale which is emphasised in relation to other predictor variables, and a critical assessment is made of it.

TEST CHARACTERISTICS AND STANDARDISING DATA

The Marino Graded Word Reading Scale (M.G.W.R.S.) assesses the ability to pronounce correctly single words in a non-contextual setting. It is a 130-item word recognition test standardised in the Republic of Ireland by O Suilleabhain (1970) on a stratified sample of 2,601 persons from five through 19 years of age. The test yields reading ages from a base of five years (no words read correctly) to a maximum of 20 years (130 words read correctly).

Evidence is available in the test manual for two different types of reliability. O Suilleabhain (1970, p. 34) cites a study in which a coefficient of internal consistency of 0.95 was obtained and he also reports split-half correlations in a variety of studies, which involved over 1,800 pupils, to the order of 0.90 (p. 35). O Suilleabhain further comments that "the coefficient of equivalence was high in all cases, urban or rural, male or female, in classes of high, low or mixed ability and at various age levels" (p. 36). The evidence for the test's overall reliability, then, is strong though this reliability may be somewhat lower at the top end of the test because five words instead of ten words cover the yearly reading age levels from 16 upwards.

Evidence provided in the test manual supporting the validity of the M.G.W.R.S. is quite impressive. O Suilleabhain (1970) cites as evidence of the criterion related or concurrent validity of his test the following studies: 13 studies in which correlations ranging from 0.70 to 0.98 were found between Marino Scale scores and ratings of "reading efficiency" by experienced teachers; three studies in which correlations of 0.98, 0.96 and 0.87 were obtained between Marino and Burt Graded Word Reading Test scores; one study in which a correlation of 0.97 was registered between scores on the Marino and Schonell Graded Word Reading Tests. It is possible to deduce from the above studies that the median validity coefficient was 0.85 and therefore of a very acceptable order.

However, the impressive coefficients for reliability and validity reported for the M.G.W.R.S. are mainly derived from small primary school grade samples. The test developer clearly states that "the effective range of the scale lies in the age range 7 + 12 +" (p. 13). Thus one must approach the use of the M.G.W.R.S. at third level with a degree of scepticism.

The developmental history of the scale for age levels 15 + would appear to justify scepticism. O Suilleabhain felt that as his was the first scale of its kind to be developed in Ireland it was desirable to include words of increasing "difficulty" beyond the age of 15 +. He chose a long list of words on the basis of his experience to provide a "ceiling" for the brighter children. After testing these words on representative samples of young people of ages 16 through 20, he included 20 words to cover the age levels 16 through 20 on the basis of a 50% success rate per word. It would be difficult to prove any theoretical justification for including the words of these upper age levels in the scale whereas the theoretical and practical construction of the scale at age levels below 15 followed scientific practice.

USEFULNESS OF THE M.G.W.R.S. AT THIRD LEVEL

This paper provides insights into the use of the M.G.W.R.S. with a small sub-group of third-level students. It is derived from an investigation into reading standards in the first year of degree courses carried out over a two-year period in the Home Economics Colleges of Education in the Republic of Ireland, St. Angela's College, Sligo and St. Catherine's College, Dublin (O Baiollain, 1982). The M.G.W.R.S. was administered to student samples from the first year intakes to the colleges in September 1977 and September 1978. The intakes were all of the one gender, female, and they were all matriculated students of either the National University of Ireland or Dublin University. The samples represented 88 per cent and 95 per cent of the 1977 and 1978 student-population intakes to the colleges, respectively, and gave a 91 per cent sample (N = 102) of the combined 1977 and 1978 student-pupulation intakes (N = 112).

One precedent was found for the use of the M.G.W.R.S. at third level. Curtis (1976) employed the M.G.W.R.S. to investigate the incidence of reading inefficiency among first year entrants to University College Galway, in September 1974. The Marino Scale discriminated effectively between levels of reading efficiency among 714 students spread over five major faculties of Arts, Commerce, Engineering, Medicine and Science.

The M.G.W.R.S. was included in the test battery because candidates for entry to the Home Economics Colleges of Education must satisfy a speech adequacy requirement. The M.G.W.R.S. is based on word pronunciation according to the Concise Oxford Dictionary. The researcher designed a scoring scheme from the Concise Oxford Dictionary to be applied to the word-items from age level 12 upwards of the M.G.W.R.S. Thus it was possible to report oral word recognition standards of first year degree students and also to analyse the performance of the measuring scale.

READING STANDARDS

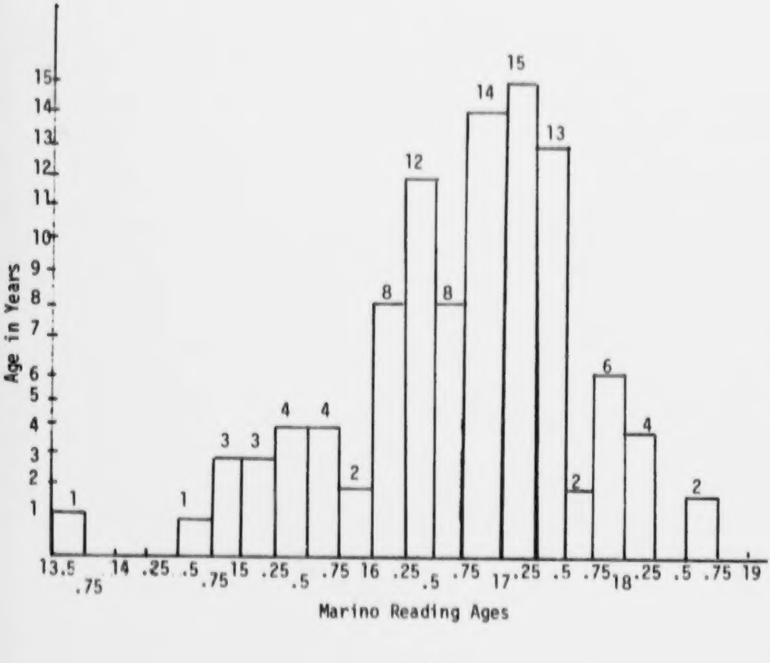
The M.G.W.R.S. was administered to the yearly samples on test-retest schedule in January and at the end of the academic year. The distribution of Marino reading ages showed a tendency to be normal for all tests. The means of the January tests in 1978 and 1979 were 16.8 and 16.6 years, respectively. Small but statistically non-significant retest gains of 0.23 and 0.12 years were recorded. The reliability of the 1978 and 1979 samples was indicated by test retest product-moment correlation coefficients of 0.88 and

0.79, which were significant beyond the 0.001 level. It was concluded that the samples were drawn from homogeneous populations, and a reliability coefficient of 0.84 was reported for a combined sample derived from the January tests.

The mean Marino reading age of the combined sample (N = 102) was 16.7 years, with a standard deviation of 0.91.

FIGURE 1

HISTOGRAM OF MARINO READING AGES OF
COMBINED JANUARY SAMPLES (N = 102)



The Marino reading ages of subjects were compared with their chronological ages. Since the ceiling age on the M.G.W.R.S. was 20, chronological ages in excess of 20 were treated at the age level of 20.

TABLE 1

COMPARISON BETWEEN MEAN CHRONOLOGICAL AGE
AND MEAN MARINO READING AGE OF
COMBINED SAMPLE (N = 102)

Mean Chronological Age	18.9 years
Mean Marino Age	16.7 years
Difference	2.2 years

The Wilcoxon Matched-Pairs Signed-Ranks Test was employed to compare reading ages and chronological ages. It yielded a Z-value of -8.72 ($p < .001$). It was concluded that subjects recognised and pronounced words of the M.G.W.R.S., age level 12 upwards, at a level very significantly below their chronological ages. Curtis (1976) reported a similar trend : the main Marino reading age of 714 entrants to University College Galway, in 1974 was 17.3 years (S.D. = 1.18) which compared with a mean chronological age of 18.4 years.

ANALYSIS OF WORD ORDER

The difficulty level of words of the M.G.W.R.S. at the various tests was investigated. The following Spearman rank correlation coefficients between the difficulty orders of Marino Scale words at the various tests and the order arrangement in the test manual were reported:

TABLE 2

MARINO WORD ORDER DERIVED FROM TESTINGS CORRELATED WITH WORD ORDER OF TEST MANUAL

	Jan. 1978	May 1978	Jan. 1979	April 1979
r_s	0.71	0.63	0.65	0.63
t	7.78	6.58	6.14	6.10
p	< 0.001	< 0.001	< 0.001	< 0.001

The correlations for word order in the various tests _vis_-_a_-_vis_ that in the test manual were significantly above zero, and they did not differ significantly from test to test. Therefore, it was not surprising that the intercorrelation coefficients for the difficulty order arrangements of Marino Scale words in the various tests were very strong and very significantly above zero:

TABLE 3

INTERCORRELATIONS OF MARINO SCALE WORD ORDERS DERIVED FROM TESTINGS

	r_s	t	P
Jan. 1978 x May 1978	0.95	24.35	< 0.001
Jan. 1979 x April 1979	0.94	21.19	< 0.001
Jan. 1978 x Jan. 1979	0.94	20.48	< 0.001
May 1978 x April 1979	0.94	20.60	< 0.001

DEVELOPMENT OF NORMS

The demonstrated stability of word order of the M.G.W.R.S. justified the development of norms. The percentage frequency rates with which Marino Scale words were pronounced correctly by the combined sample (N = 102) were used to rank the words in order of difficulty. Resultant norms are reported in the form of a sten table.

TABLE 4

NORMS FOR MARINO GRADED WORD READING SCALE,
AGE LEVEL 12 UPWARDS

Percentage Frequency Passing Rate	Word	Sten
100	Queue	1
	Opaque	
99	Syllable	
	Genius	
	Potential	
98	Rheumatic	
	Chronicle	
97	Sapphire	
96	Anonymous	
95	Righteous	
	Syringe	
94	Architect	
	Jeopardy	
93	Melancholy	
	Physician	
	Pleurisy	
92	Haemorrhage	
90	Eligible	2
	Pneumonia	
	Rigorous	
89	Oriental	
88	Picturesque	

TABLE 4 continued

Percentage Frequency Passing Rate	Word	Sten
84	Enthusiasm	
	Mercenary	
83	Benevolence	
	Deciduous	
81	Acidulous	
80.5	Unanimous	
80	Massacre	3
79.5	Relevant	
	Reminiscence	
79	Psychosis	
78	Tenacious	
73.5	Foliage	
73	Sepsis	
	Goitre	
70	Luscious	4
63	Equable	
62	Inchoate	
60	Fealty	5
54	Archive	
52	Scythe	
49	Centenary	6
44	Fugue	
43	Eurhythmic	
39	Cacophony	7
37	Indefatigable	
33	Acetylene	
32	Abysmal	
31	Croquet	
28.5	Manoeuvre	8
25.5	Pedagogy	
22	Breviary	
21.5	Abbatial	

TABLE 4 continued

Percentage Frequency Passing Rate	Word	Sten
14	Sequoia	9
9	Expatiate	10
6	Sapiential	
5	Chiasmus	
3	Femineity	
	Apophthegm	

Table 5 illustrates the relationship between the norms developed from the combined sample (N = 102) and the test normal norms.

TABLE 5

DISTRIBUTION GRID OF WORDS OF THE MARINO GRADED WORD READING SCALE, AGE LEVEL 12 UPWARDS, ACCORDING TO STEN RANGE OF RESEARCH AND AGE LEVEL SPECIFIED IN TEST MANUAL

Sten Age Level	1	2	3	4	5	6	7	8	9	10	Total
12	4	4	1		1						10
13	4	2	2			1		1			10
14	7	2	1								10
15	2	2	2	2	1			1			10
16					1		3			1	5
17		1		1			2	1			5
18			2			1			1	1	5
19						1				4	5
Total	17	11	8	3	3	3	5	4	1	5	60

It was apparent that words from the lower age levels, 12 to 15, mostly comprised the range of words in the lowest stens, 1 to 4, while words from the higher age levels, 16 - 20, mostly comprised the range of words in the highest stens, 6 to 10.

An investigation of the lower age-level words which were placed in the higher sten range showed that *scythe*, age level 12, and *fealty*, age level 15, were placed at sten 5; *centenary*, age level 13, was placed at sten 6, and that *manoeuvre*, age level 13, and *breviary*, age level 15, were placed at sten 8.

An investigation of the higher age-level words which were placed in the lower sten range showed that *acidulous* and *inchoate*, age level 17, were placed at sten 2 and sten 4, respectively; *psychosis* and *goitre*, age level 18, were placed at sten 3.

The norms of the M.G.W.R.S. age level 12 upwards, can be reported in reading ages with the aid of the formula,

$$5 + \frac{70 + \Sigma_{1}^{40}(x = 1) + \Sigma_{41}^{60}(x = 2)}{10}$$

provided the 60 words of the scale are administered according to the ranked order detailed in Table 4 and the phonetic scheme of the Oxford Dictionary.

The independent constant 5 means that a candidate is credited with 5 Marino reading years; $\Sigma_{1}^{40}(x = 1)/10$ means that the first 40 words, *queue* to *fealty*, are worth one tenth of a year each, and $\Sigma_{41}^{60}(x = 2)/10$ means that the words ranked 41 or higher, *archive* to *apophthegm*, are worth two-tenths of a year each. The formula will credit a candidate who fails to pronounce any of the 60 words correctly with a Marino reading age of 12 years.

VARIANCE IN MARINO READING AGES

Variance in the Marino reading ages of the combined sample (N = 102) was investigated with the aid of the Kruskal-Wallis One-Way Test of Variance by Ranks. The attainment of subjects according to provincial grouping, social class and self-ratings of reading habits (for unprescribed course work material) was found not to vary statistically to a significant extent. The subjects were adequately represented in the varying groups involved in the analysis of variance.

RELATIONSHIPS BETWEEN MARINO GRADED WORD READING SCALE AND OTHER VARIABLES

The Marino reading ages were correlated with:

(i) reading variables and a measure of non-verbal intelligence;
(ii) the entrance order of merit to the colleges;
(iii) post-primary Leaving Certificate attainment, and
(iv) the First University Examinations.

(i) Reading Variables and Non-Verbal Intelligence

The Nelson-Denny Reading Test (Brown, 1973) was administered to subjects and its subtests (vocabulary, comprehension, total test [composed of the vocabulary and comprehension attainment according to the formula : t = v + 2c], reading rate) were established to be valid tests for the combined sample, with some reservations about the reading rates. A measure of general culture was adapted from Hopkins (1972); it consisted of an inventory of titles of 40 books/plays which were considered to be representative of the major historical and literary works through the centuries. Subjects were requested to identify the authors of the listed works. The measure of non-verbal intelligence was provided by Advanced Progressive Matrices Set II (Raven, 1965) which was established as a valid test for the combined sample. The following correlations were reported:

TABLE 6

MARINO READING AGES CORRELATED WITH READING VARIABLES AND NON-VERBAL INTELLIGENCE

Vocabulary	$r = 0.56$	($p < 0.001$)
Comprehension	$r = 0.39$	($p < 0.001$)
Total	$r = 0.56$	($p < 0.001$)
Reading Rate	$r = 0.09$	N.S.
General Culture	$r_t = 0.59$	($p < 0.001$)
A.P.M. II	$r = 0.15$	N.S.

The correlations reported contained no surprises. It was to be expected that a test of oral word recognition and pronunciation would correlate more strongly with vocabulary - understanding individual words - than with comprehension or the understanding of sentences and paragraphs. The moderately strong relationship with general culture was achieved against rather low levels of cultural attainment. The non-significant relationship with reading rates and non-verbal intelligence scores were not unexpected.

(ii) Entrance Order

The entrance order of merit resulted from a selection procedure which was common to the two Home Economics colleges of education. Marino reading ages correlated with the yearly entrance orders as follows:

TABLE 7

MARINO READING AGES CORRELATED WITH ENTRANCE ORDER

Sept. 1977 Entrance Order = $r_s = 0.34$ ($p < 0.025$)
Sept. 1977 Entrance Order = $r_s = 0.13$ N.S.

However, the correlation coefficients for the yearly entrance orders did not differ to a statistically significant extent, and it was therefore possible to report an averaged correlation for the combined 1977 and 1978 entrance orders:

$$T_s \text{ average} = 0.24 \ (p = 0.0188)$$

The significant relationship between Marino reading ages and the combined yearly entrance orders, though of a low order, could be expected because an oral reading test is included in the entrance interview.

(iii) Post-Primary Leaving Certificate Attainment

Marino reading ages correlated with post-primary Leaving Certificate subject grades as follows:

TABLE 8

MARINO READING AGES CORRELATED WITH LEAVING CERTIFICATE SUBJECTS

	N	r_t	p
Gaeilge	102	0.07	N.S.
English	102	-0.08	N.S.
Modern/Classical Languages	91	0.50	0.004
Mathematics/Science	100	0.26	N.S.
History/Geography	79	0.15	N.S.
Home Economics	102	-0.01	N.S.

It was concluded that only Modern/Classical languages were moderate predictors of competency in word recognition and pronunciation. The lack of association of Marino reading ages with English grades probably reflects the literary nature of a curriculum which is studied in an individualised manner.

Marino reading ages were correlated with the overall performance of testees at the Leaving Certificate, which was titled "Leaving Certificate Academic Performance Level", and was derived from the points aggregate from best six subject grades.

TABLE 9

MARINO READING AGES CORRELATED WITH LEAVING CERTIFICATE ACADEMIC PERFORMANCE (BEST SIX SUBJECTS)

$r = 0.26$ ($p < 0.001$)

Therefore, overall performance in best six subjects at the Leaving Certificate correlated lowly but significantly with Marino reading ages. The importance to be attached to this relationship comes from the finding that r_s average correlation of 0.52 ($p < 0.001$) was established between the overall Leaving Certificate academic performance levels and the combined yearly entrance orders to the colleges.

(iv) First University Examinations

As the B.Ed. (Home Economics) degree courses were dissimilar in the two colleges, the First University Examinations at the colleges were treated separately. The following product-moment coefficients were reported for the correlation of Marino reading ages with the First University Examinations at the colleges:

TABLE 10
MARINO READING AGES CORRELATED WITH
FIRST UNIVERSITY EXAMINATIONS

	(i) St. Angela's College		(ii) St. Catherine's College	
Education	0.36	($p < 0.025$)	0.09	N.S.
Science	0.27	N.S.	0.16	N.S.
Home Management	0.24	N.S.	0.10	N.S.
Food Studies	0.24	N.S.	0.08	N.S.
Dress & Design	0.03	N.S.	0.11	N.S.
Aggregate Results	0.29	($p < 0.05$)	0.27	($p < 0.05$)

Marino reading ages correlated significantly with Education (0.36) and Aggregate (0.29) at St. Angela's, and with Aggregate (0.27) at St. Catherine's. Though the correlations with the Aggregate Examination results were low, they were of some importance because the First University Examination is awarded on the aggregate result in both colleges.

MARINO GRADED WORD READING SCALE AS PREDICTOR

The M.G.W.R.S. was used as the independent variable or predictor of the Nelson-Denny subtests in the regression formula, $Y^1 = a + bX$ (Edwards, 1976). The regression of vocabulary, comprehension and total (v + 2c) test attainment on Marino reading ages yielded prediction score ranges which were representative of the attainment of subjects in the respective reading skills and, thus, the M.G.W.R.S., age 12 upwards, can be used to give a profile of reading.

TABLE 11

MARINO READING AGES AS INDEPENDENT VARIABLE WITH REFERENCE TO PROFILE OF READING ATTAINMENT

	Prediction range	Full range of dependent variable	Percentage subjects who scored within prediction range
Vocabulary $X^1 = -97.03 + 8.022Y$	7-63	0-100	98
Comprehension $X^1 = -34.29 + 4.176Y$	23-49	0- 72	95
Total (V + 2C) $X^1 = -132.01 + 12.323Y$	28-114	0-172	98

Though the M.G.W.R.S. correlated significantly with the First University Examination Aggregate Results at the colleges, the regression of the Aggregates on Marino reading ages was not justified because the low correlation (0.29 at St. Angela's and 0.27 at St. Catherine's; Table 10) explained only small amounts of variance in the dependent variable (8.4% at St. Angela's and 7.3% at St. Catherine's).

SUMMARY AND CONCLUSIONS

The M.G.W.R.S. was included in a battery of reading tests with the purpose of investigating the importance of the reading factor in the Home Economics colleges of education with regard to selection of entrants and prediction of study success. The scale from age level 12 was administered according to a phonetic marking scheme. The paper has focused on the performance of the M.G.W.R.S. which is emphasised in relation to the other predictor variables used in the O Baiollain study.

Quite contrary to what might have been expected, the M.G.W.R.S. was found to perform stably among a sub-group of third-level female students. This stability could be achieved with other groups at third level, provided users of the scale familiarised themselves with the taped sounds of the phonetic marking scheme.

It was also reported that variance in the Marino reading ages was not associated with provenance of birth, social class or self-rated reading strengths for leisure time reading.

The Marino reading ages were correlated significantly but lowly with the entrance order of merit of candidates to the colleges at 0.24 (Table 7) and the cumulative

Leaving Certificate examination results at 0.26 (Table 9). Only individual Leaving Certificate subject grades in Modern/Classical Languages correlated with any strength at 0.50 with the M.G.W.R.S. (Table 8). These findings are to be interpreted against the background that the test developer regarded the Marino Scale as being effective up to age levels 12 - 13. The reported research does little to enhance the validity of the Marino for the upper age levels. The scale correlated too lowly, though significantly, with the aggregate results in the colleges (0.29 at St. Angela's and 0.27 at St. Catherine's) to make extravagant claims for regression equations in respect of end of year success in the colleges (see Table 10). Given the nature of the M.G.W.R.S., a test of word recognition and pronunciation, it would be a surprise to have found more than a slight relationship with educational success at third level. Furthermore, the specific word order established for the scale with a sub-group of third-level research subjects serves as a warning to would-be users of the M.G.W.R.S. at the higher age levels that the original scale may not be appropriately ordered at all (Table 4).

The reported mean Marino reading age of the research subjects was significantly lower than their mean chronological age (Table 1). Curtis (1976) reported a similar finding. It would appear to be uncertain what meaning should be attached to the upper age-level norms of the M.G.W.R.S.

Some small degree of optimism about higher age-level use of the M.G.W.R.S. can be derived from its correlation pattern with other areas of reading, namely vocabulary and comprehension (Table 6). However, judging from the amounts of variance which were accounted by the Marino reading ages in relation to vocabulary and comprehension 31% and 15% respectively) caution must be urged in adopting the scale as a means of profiling reading strengths of students. Nevertheless, further investigation of this use of the M.G.W.R.S. at higher age levels might yield welcome and worthwhile results because the scale as administered in the O Baiollain research requires no more than five minutes to administer even though it is on a one-to-one basis. Finally, dangers of infringements of testing security occurring because of the widespread availability of the M.G.W.R.S. would be partially overcome by the need to use the rearranged ordered scale age level 12 upwards, and by adhering to the phonetic marking scheme for the word items.

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MANAGEMENT AND ACCOUNTABILITY - A POST-PRIMARY PERSPECTIVE

Luke Murtagh

INTRODUCTION

I am going to examine educational management in general from the point of view of management training. I will then conclude the paper by dealing with accountability, an integral part of the management function. The comments I am making are rooted in my own experience in a particular sector of the post-primary system. They are also based on my observations on the other sectors in that system. To place my comments in context, I will briefly describe the operation of Co. Tipperary (N.R.) Vocational Education Committee.

The scheme is controlled by a committee of 20 people who are selected as follows:

FIGURE 1

(a) Co. Tipperary (N.R.) Co. Council
14 = 6 are elected County Councillors
8 are nominated by the County Council

(b) Thurles Urban District Council
2

(c) Nenagh Urban District Council
2

(d) Templemore Urban District Council
2

These are the occupations of the Vocational Education Committee members:

FIGURE 2

Clergy	2	Businessmen	4
Trade-union officials	2	Salesman	1
Teachers	3	T.D.	1
Printer	1	Farmers	2
Retired person	1	Factory workers	2
Ambulance driver	1		

The committee has responsibility for providing an education service in north Tipperary under the 1930 Vocational Education Act. It meets once a month with the press present. As C.E.O. I am responsible and accountable to the committee for managing the scheme.

The following are the services provided by the Vocational Education Committee:

(a) post-primary education in 6 schools with an enrolment of 2,150 students;

(b) adult education in 12 centres in north Tipperary, with an annual enrolment of approximately 1,500 students;

(c) a higher education grant scheme to the non-university technological sector;

(d) administration of youth and sport grants and the co-ordination of certain youth and sport activities;

(e) operation of an Outdoor Education Centre at Newport, Co. Tipperary;

(f) co-operation in providing education services to travellers and young people at risk;

(g) co-ordination of the free transport scheme;

(h) pursuing the case for the establishment of a regional technical college in Thurles.

As I am dealing specifically with post-primary education, I will outline some significant initiatives the committee has taken in that area, as follows:

(1) the publication of a policy document, in 1979, entitled "Post-Primary Education 1985 - 2000 and its Relevance to the Economy".[1]

Arising out of that document, four curriculum development projects are being undertaken:

- Health Education/Education for Living;
- A Senior Cycle Mathematics Programme;
- Secretarial Studies;
- Pre-Employment.

Previous to my appointment as C.E.O. of Co. Tipperary (N.R.) V.E.C. in 1978, I was principal of a rural vocational school in Thomastown, Co. Kilkenny for almost eight years and also president of the Association of Principals of Vocational Schools for three years. So the comments that I am making are from that particular perspective.

I will now move on to discuss educational management in general.

EDUCATIONAL MANAGEMENT AND TRAINING FOR MANAGEMENT

I would like to define educational management simply as managing the people and resources in an education unit/system, with a view to optimising the quality of education being provided in that unit/system. For the purposes of the paper, I am including the following as being engaged in educational management:

FIGURE 3

School Level	Non-School Level
* Grade A post-holders	* Manager (single school)
Vice-principal	C.E.O. (number of schools)
Principal	* Department of Education officials inspectorate

* Grade A post-holders do not have a real management function in many voluntary secondary schools.
* Where the manager is separate from the principal.
* Officials at assistant-principal officer or higher.

I will concentrate mainly on those directly involved in school management, and in particular the role of the principal, whom I see as the key manager leading the school management team. Figure 4 represents a description of the managerial tasks of the secondary school head and his/her management team.

The most striking feature of the Irish post-primary education scene, when looked at from a management point of view, is the complete lack of any formal management training system at either pre-service or in-service level, for those engaged in school management.

The situation in the United Kingdom is only slightly better. They have only recently woken up to the need for a formal system of management training with the issuing of Circular Letter 3/83, and the establishment of The National Development Centre for School Management in Britain in September 1983. This emphasis on management training is, I suspect, a welcome spin-off from the financial rectitude and accountability tehos, at present pertaining to the U.K. Educational management is in its

FIGURE 4

MANAGERIAL TASKS OF THE SECONDARY SCHOOL HEAD[2]

Task category	Sub-task
Technical, i.e. educational	1 Goal identification
	2 Academic curriculum
	3 Pastoral curriculum
	4 Ethos
	5 Resources
Conceptual, i.e. operations management	6 Planning, organisation, co-ordination and control
	7 Staff deployment
	8 Evaluation and record keeping
	9 Buildings, ground and plant; finance
Human relations, i.e. leadership and human management	10 Motivation
	11 Staff development
	12 Inter-personal, intra-group and inter-group conflict resolution
	13 Communication
External management i.e. community relations and accountability	14 Accountability to governors and L.E.A.
	15 Parents and the general community
	16 Employers

infancy in these islands. What is the effect of this lack of management training? Let us look at the effects at the macro level, at school level and scheme level.

(1) At the macro level, we have a situation where the system, which has approximately 325,000 pupils and

approximately 19,000 teachers with an annual current budget of approximately £400,000,000.00[3] is being run by people who by and large have no formal management training. In addition to that those at the non-school level, including C.E.Os. and managers and Department of Education officials, have little or no formal management training. This has given rise to a system which has not achieved its potential and which has been the subject of severe criticism in recent years by industry, AnCO and the Youth Employment Agency. The Department of Education recognised this fact by establishing the Curriculum and Examinations Board. It has also given rise to a system which is stagnant and which is going to have great difficulty in responding to the challenges presented by the Curriculum and Examinations Board.

(2) Secondly, at school level, you have the situation where a principal is appointed and often takes up duty without as much as one day's in-service training in educational management. Worse than that, when the person is appointed he/she gets no in-service management training. All the other management appointments in the school also happen without the benefit of any formal in-service or post-service training. That situation should be contrasted with what happens in industry, where pre-service and in-service training are seen as an integral part of an effective training system. I have been recently involved in the appointment of a director/manager for a community training workshop funded through AnCo. The newly appointed director will have a one-month paid induction period and will also have in-service management courses during her tenure as director.

The effects of lack of a proper management training programme at school level are:

(1) the school does not develop during the period the principal is finding his feet;

(2) the principal, because of lack of management training, often feels his job is to get on top of the existing situation, with existing programmes and resources. Future planning, which is an essential management tool, is often ignored or is at best haphazard;

(3) the area of staff relationships and the concepts of a staff development programme is often neglected. Personnel management is a complex and difficult area, in the Ireland of 1984, and with the movement from autocratic management towards consultative and participative management, management training in this area is vital;

(4) schools often lack management structures; as a result the principal is overburdened and necessary development is postponed or slowed up;

(5) principals and those in management generally are feeling under increased pressure and often suffer from stress;

(6) principals are often isolated and fail to place their schools in the context of the broader changes and issues in society at large.

(3) Thirdly, at scheme level, the negative outcomes already outlined are also in evidence. The most critical failure at this level is the lack of back-up and support for school management teams in their management tasks.

These comments are based on my own personal experience. However, there are two pieces of research evidence to support what I have been saying.

The first is a study carried out by Patrick Diggins on "The Task of the Principal in Second Level Schools in the Republic of Ireland" reported on at the Annual

Conference of the E.S.A.I., 1982. The study made the following recommendations:

> There can only be one important recommendation to make that may help further the cause of educational administration in the Republic of Ireland, and that is, adequate training in educational administration must be provided to principals prior to their taking up duties as principals, that those already in office be required to engage in in-service training, and that all be encouraged to keep themselves continuously abreast of developments in educational administration.
>
> A subsidiary recommendation is that the role of the principal be enlarged to include staff assessment. It is the researcher's considered opinion that this would assist principals and teachers alike in defining the objectives which they aspire to and may also assist in deciding how these objectives may be attained. 4

The second piece of research evidence is contained in the E.S.R.I. report no. 113 Schooling and Sex Roles - Sex Differences in Subject Provision and Student Choice in Post-Primary Schools by Professor Damien Hannan et al.

> Given the significance of such organisation factors, and the wide variation that is found, there would appear to be a strong case for comprehensive management training courses for school principals and other teachers intimately concerning with managing the schooling process. The complexity and the importance of the management tasks involved are so great that, given the evidence of significant differences in school effectiveness (Madaus and Kelleghan et alia, 1979; Rutter et alia, 1979), it would appear essential to set up management training courses that are geared towards maximising effectiveness, and that incorporate the most up-to-date information from research studies. In regard to reducing the levels of sex differentiation in both single sex and coed schools, school managements

> play a vital role in the way physical and teaching resources are allocated and managed. The *White Paper* (para. 11.6) recognises this need but, from all the indications available, the issue would need to be treated with greater seriousness and urgency. [5]

The solution to the problem, as identified by Patrick Diggins and Damien Hannan is obvious, but *difficult* to implement.

The extent of the task facing this country is underlined by the fact that in the United Kingdom a *basic* course in school management for principals lasts twenty days.

Though the Department of Education has indicated its commitment to management education, the high cost factor of providing even basic courses is going to be very inhibiting. The solution to the problem is of course the implementation of a comprehensive training programme for all those engaged in educational management at national, scheme and school level. The need for this is recognised in the *Action Plan for Education 1984-87*[6] and in the consultative document *Issues and Structures in Education*[7] published by the Curriculum and Examinations Board.

Although the picture is gloomy, some solace can be gained from the fact that a number of educational management courses have been provided as follows in recent years:

(a) two summer courses of approximately one week each were organised by the Department of Education since 1980.

(b) Courses organised by the Secretariat for Secondary Schools.

(c) Courses organised by the I.V.E.A.

(d) A course organised by Co. Tipperary (N.R.) V.E.C.

in co-operation with Thomond College in 1983/84 which covered five sessions each lasting 1½ days. This course was open to V.E.C. and voluntary schools in Tipperary, Offaly and Limerick.

I will now deal with the second theme of my paper : accountability.

ACCOUNTABILITY

Accountability, which, according to the Shorter Oxford Dictionary is "being responsible to/for" is of course an integral part of management. I will deal with it under two headings:

(1) Educational Accountability;
(2) Financial/Resource Accountability.

Where necessary, I will distinguish between the V.E.C. sector, which is publicly accountable through the committee and subject to audit by a local government auditor and the voluntary, community and comprehensive systems, which are not publicly accountable.

Figure 5 outlines how accountability works in practice in the Irish system under the headings of education and finance/resources. The community and comprehensive schools, though in theory public schools, do not have formal public accountability. I have made a distinction between formal and informal accountability. I would define formal accountability as legal, statutory or direct accountability where those accountable have to formally report to or consult an individual, body or organisation. It may also imply some sort of sanction if the accountable person is not achieving certain goals or mismanages finances or resources.

FIGURE 5

ACCOUNTABILITY OF SCHOOL MANAGEMENT
POST-PRIMARY EDUCATION

Elements	Informal			Formal		
	Public	Voluntary	Comm./Comp	Public	Voluntary	Comm./Comp.
Educational	Students Parents (parent Associations) Teachers Employers Public Interest Groups Government	As public	As public UNIONS	Law of the land Department of Education District Inspector V.E.C.	Law of the Land Department of Education Religious Order	Law of the Land Department of Education Board of Management
Financial/ Resources	Teachers Public (Media)	Teachers	Teachers	Department of Education Local Government Auditor V.E.C.	Department of Education	Department of Education Comptroller and Auditor General
Methods of Educational Accountability	All Sectors Students : Feedback in-school assessment of teaching Parents : School reports, meetings Teachers : Staff meetings, union meetings, own assessment Others : Submission to government and media			Inspectorate Principal, C.E.O. Public Exam. Other Exam.	Inspectorate Principal Manager Religious Order Inspection Public Exam. Other Exam.	Inspectorate Principal Public Exam. Other Exam.

Informal accountability is more in the nature of answerability and professional responsibility to individuals, groups or organisations without having to report formally or legally to them or consult with them.

I have placed unions in an intermediate position between formal and informal accountability. This tends to reflect the actual situation on the ground, where effectively the trade unions, in all sectors, can come under the heading of formal accountability if they decide to make an issue out of a particular situation or programme. With the increasing trend towards consumerism spreading to Ireland, I expect to see parents/parent associations and students demanding a greater level of formal accountability (through the media/courts) in future.

Let us examine Figure 5 in detail:

Educational accountability

(1) Informal:

All three sectors are informally accountable to the students, parents, parent associations, teachers, employers, interest groups, the public at large and government for the quality of education being offered in particular schools. Naturally the greatest degree of accountability is to students, parents and teachers.

The public sector has a greater level of accountability to all of these groups through the mechanism of the committee where any body or group within this category can have failures/problems publicly aired and resolved. The public element is achieved:

(a) through the public representatives;

(b) the press being present at V.E.C. meetings.

The methods of informal accountability are:

(1) students : normal feedback on progress, term reports, the students' judgement on how teacher/school is performing, own judgement.

(2) Parents : students' comments, views, term reports, parent meetings, own judgement.

(3) Teachers : staff meetings, informal discussions with colleagues, discussions with principal, union meetings, own judgement.

(4) Others : community perception about the school, national perception about education and its role, employers' perception of school system, training and manpower agencies' perception, surveys, studies, policies demanding action by education, media, reports, etc.

(2) Formal :

(a) all sectors are accountable to the state for applying the law of the land.

(b) All sectors are accountable to the Department of Education. I will deal later with the effectiveness of that accountability which is achieved through the department's inspectorate. The level of accountability to the department is somewhat less in the case of the voluntary sector because these schools are privately owned.

(c) The principal is accountable in the public sector to the V.E.C. In the voluntary sector he is accountable to the manager and order, and in the community and comprehensive sector to the board of management.

(d) The public sector is accountable to the V.E.C. This is achieved through the C.E.O. who reports to the committee regularly on educational progress. He also prepares an annual report which is presented to the committee. In addition, he can be asked by any member of the committee at any meeting to account, in public, for the quality of education being provided. Again, he is publicly accountable.

(e) All sectors have their performances measured through public examinations. It is the only universally accepted measurement of performance in the Irish post-primary system.

(f) Other examinations, which include internal examinations, are used by all schools as a measure of students' progress.

As I have already stated, teacher unions move between formal and informal accountability, depending on circumstances. They can make management formally accountable in effect, by enforcing policy about class size, number of hours worked, time spent in preparation, supervision, curriculum development, particular programmes, etc. The mechanism does not need to be spelt out.

Financial Resource/Accountability

(1) Informal:

All sectors are informally accountable to their staff. The public sector is accountable through the local government audit procedure and the midea.

(2) Formal:

All sectors are accountable to the Department of Education, especially by having to meet certain criteria to secure finance and resources. However, the level of accountability is significantly different when it comes to measuring how the money was actually spent. To say the least of it, the mechanism for checking in the voluntary, community and comprehensive sector is very loose. In the public sector, the level of accountability for the spending of money is very strict, through the local government audit system. Under this system, a local government auditor must, by law, examine the accounts for each year and make a report to the committee and the Department of Education.

Role of the Department of Education

The role of the Department of Education and the inspectorate is an interesting one, from the point of view of educational accountability.

Effectively, the department does not measure the quality of education being offered but only insists on recognised courses, as per "The Rules and Programmes" being followed. Schools in all sectors are required to follow approved programmes to be recognised. Theoretically, it measures the quality of the education being offered through the inspectorate.

The department cannot measure the quality of education in post-primary schools because its inspectors are finding it difficult to carry out their monitoring function for the following reasons:

(1) in some cases teachers are refusing to teach for them;
(2) they are overburdened with examination and other non-inspectorial work;
(3) they have very few real powers with regard to taking action on ineffective teaching;
(4) they operate on an individual subject basis and rarely if ever carry out a "whole school inspection".
(5) they are demoralised and frustrated.

As can be seen from the points I have already made and from the diagram, the question of accountability is a very complex one in the Irish educational system.

In business, accountability, which carries with it a means of measurement and is underlined by sanctions, is a readily accepted and understood concept. If a manager in business does not achieve the goals set by his employers he will inevitably lose his job. He is clearly accountable. The targets set by his employers can be easily quantified and measured in terms of production, turnover or profitability.

In education, the position is not so clear-cut because of:

(a) the absence of effective sanctions;
(b) the difficulty of measuring the outcomes of education;
(c) the ineffectiveness of the existing inspectorial system.

A simple example will illustrate the point. An essential element in the successful school is the quality of the teaching staff. In fairness, if a principal is to be accountable for the educational performance of the school, the teachers on the staff should be accountable to him for their performance in the classroom. We all know that this is not so according to the definition of accountability being used in this paper. In a school situation where a teacher is performing poorly, cannot control his class and achieves poor examination results, the principal is powerless if the professional pride and responsibility of the teacher does not respond to exhortations to improve and offers of support. The department's inspectorate can be brought in but again their powers are very limited in reality. Parents will complain but the principal, if his powers of persuasion do not work, will have to explain that there is really not much that can be done. The solution often adopted by parents is to move their children to another school or to get a grind.

In the Irish post-primary educational system, the teacher, who is central to the success of the system, is effectively not accountable to anybody except himself, through his own professional integrity. Thankfully, the vast majority of teachers are truly professional in their approach. However those that are not, and the lack of genuine external accountability, are serious drawbacks within the system.

CONCLUSIONS

From a management perspective, I have identified two serious problems facing the Irish post-primary system:

(1) the lack of management training;
(2) the lack of real formal accountability.

Both of these problems are contributing to the stagnation and lack of development of the system.

To alleviate the situation, I recommend the following:

Management Training

(1) All engaged in the educational management should receive in-service and pre-service management training.
(2) A national "management training centre" should be established and run by a steering committee representing management interests and the Department of Education. This will involve a significant financial commitment on the part of the Department of Education.

(3) Paid substitution should be provided for all engaged in induction and in-service management training.

(4) The universities should expand their M.Ed. courses in educational management.

(5) The E.S.A.I. should focus on educational management as a priority area within education.

(6) The management bodies should immediately embark on a programme of management training, even if very limited in scope (because of financial and organisational difficulties).

Accountability

1 The role and function of the inspectorate needs to be redefined.

2 The establishment of an agreed local education authority will help considerably in improving accountability.

3 The Minister and the Department of Education must exercise their authority, and through proper consultation and negotiation arrive at a system where teachers, and education managers are truly accountable, educationally.

If the Minister does not make education managers truly accountable educationally by making teachers accountable, the growing trend to consumerism will do so through the courts and the media.

Education managers are faced with an impossible task. They are asked to manage without formal management training and they are asked to be accountable without any real control over the most important input into the system.

The Irish post-primary education system is facing a period of great challenge. To help it to meet that challenge, a comprehensive management training programme must be developed and managers should be made publicly and effectively accountable for their stewardship.

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SCHOOL MANAGEMENT AND CURRICULUM DEVELOPMENT

Sister A. T. O'Shea

I begin this article with a quotation, not from a renowned educationalist or a learned journal but from an evening newspaper which goes into thousands of Northern Ireland homes every day and is undoubtedly an important opinion maker for many of our people:

> If someone in the 35 - 40 age group now were to go back to school they would probably find a curriculum which bore little resemblance to what they were being taught two and a half decades ago. Traditional subjects would have their place but in addition, he could be faced with the following - life skills, computer appreciation, survival cooking, word processing, technological understanding and economic and political awareness.
>
> The same individual scanning the 'situations vacant' columns in a newspaper would also find job-descriptions unheard of 25 years ago - resettlement project workers, support analysts, CAD/CAM engineers, community assistants, bio-metricians, buildings and grounds officers. 1

These descriptions are a measure of the extent to which our society has changed in a short space of time.

In a recent education programme on Radio 4 called "Testing Times" the opening statement ran something like this:

> The State Secondary Education system in England and Wales is going through its greatest period of change since 1944. What children in our four-and-a-half thousand secondary schools learn; why they learn it, how they're to be tested on it and who says so are all involved. 2

It went on to say that the pressures for change are mounting; in fact they are almost irresistible.

In the Republic of Ireland the Minister for Education's publication Programme for Action 1984-87 states:

> the Curriculum and Examinations Board will have the task of reviewing curricula in both primary and post-primary education and of examining the need for reform in examinations and assessment procedures. [3]

It would therefore appear that in the matter of curriculum and curriculum change we are all involved.

But why should we embark on curricular change? Our senior chief inspector, Ivan Wallace, listed ten very good reasons in a recent address to our Secondary Heads Association:

1. the knowledge explosion;
2. rapid advances in technology affecting what pupils learn and the manner in which they learn it;
3. the growth of information and its accessibility and the increasing sophistication of communication systems;
4. significance of the media, particularly television;
5. the structure of employment and the balance of occupations with implications for greater adaptability and mobility;
6. the effectively deferred entry to employment;
7. the increasingly likely prospect of reduced working hours, not to mention unemployment;
8. the need to see the content of compulsory education in a time perspective which includes continuing and recurrent education;
9. the increasing cultural and moral pluralism of our society;
10. the demand for strengthening the active and informed participation of all citizens in political, civil, social and working life.[4]

Such a list is sufficient indication, if any were needed, that the curriculum is now at the core of the educational debate and is likely to remain there for some time to come. Until the early 70s the curriculum was little discussed; indeed it was regarded as uncontroversial and it was generally taken for granted that it should remain the responsibility of individual schools and teachers. Because of pressures on teachers to maintain standards and the general domination of curriculum by examination requirements the possibility or likelihood of curriculum change or development depended to a large extent on the enthusiasm or imagination of individual teachers who were prepared to be inventive and try something different. Sometimes such individuals were encouraged by bodies such as the Schools Council, the Nuffield Foundation, the Rowntree Trust (in the Republic, the Curriculum Development Unit at Trinity College). The net impact of such developments, however, appears to have been negligible as evidenced by the "impact and Take Up" studies in England[5] or Northern Ireland.[6]

Today, the scene has changed, changed utterly perhaps. Everyone is talking about the curriculum and the need for curriculum change: books and articles are multiplying, in-service courses on the curriculum are proliferating. It is almost as if curricular change were being heralded as the panacea for all the ills of society. There is, of course, an inherent danger here for all of us who are involved in the business of education. Despite the evidence that current high rates of unemployment are primarily a consequence of economic recession combined with other societal and technological changes, there is a tendency to be unduly critical of schools and to blame them because they produce under-educated or inappropriately trained young people. The ultimate effect of such criticism, if it is not seen in perspective, is to undermine the confidence of schools and teachers. It will certainly leave them less well able to cope with the inevitable changes and developments which they will have to undertake, as they strive to update through their teaching the knowledge, concepts and skills which are essential for the future well-being of our pupils as they fact the latter years of the twentieth century and the first decades of the 21st century.

This is where the question of management becomes paramount. Management, however, carries with it a variety of connotations. For instance, it is frequently related to the notion of efficiency and for many the notion of efficiency is related to output or product. If we take this view of management we will regard the level of examination success as the most important criterion of sound management of the curriculum and even of education. If we wish to relate management to curriculum development we can be similarly seduced, for the notion of management also carries the implication of planning as a purposeful, calculated, rational activity. If one looks at much earlier writing on managing the curriculum, it would appear that for the most part it was devoted to constructing the rationale for the existing curriculum in schools. Areas of knowledge were described very much in relation to the traditional secondary school time-table. It was taken as read that a period of science on the time-table necessarily provided an experience of science; that a period of religious education necessarily offered to pupils an enhancement of religious, moral or ethical understanding. In other words, managing the curriculum could easily be translated as the management of available resources, that is that Mr. Stewart is teaching History to Class 3B in Room 1 on Monday at 2.00 p.m. The nature or quality of that classroom experience of history was not regarded as problematic. It is, therefore, easy to see how educational theory can be confused with objective reality, how managing the curriculum could merely denote a relatively rational set of procedures for the organisation of learning. However, all of us who are familiar with the running of schools on a day-to-day basis will realise that the organisation or management of a school's curriculum on any particular day may be as much about what is expedient in terms of available resources as about the implementation of some rational master plan. The competing rationalities of the various groups involved in decision making about the curriculum also need to be managed. This of course raises the question as to who exerts the most powerful influence on decisions which affect classroom practice. Current research shows quite clearly that a time-table does not in fact, tell us very much about the quality of the learning experience which is being offered to that 3B class in their history lesson.

Do not misunderstand me. Time-tables will still have to be constructed. Resources of time, space and personnel will still have to be managed. But one thing is certain: all of us who are involved with the education of young people between the ages of 5 and 16 will have to look much more closely at the quality, range, balance and depth of the total curriculum experience which we offer to our youngsters. This applies no less to those of us who teach than to those who have senior management or even middle management roles in schools. Perhaps one of the most significant points made in the many curriculum documents now emerging is the need for all teachers to be involved in thinking about the whole curriculum either for the school or for a single year group. The existing division of labour within our schools means that this overview remains difficult to achieve and is one aspect that needs to be more actively managed. It is precisely expressed in a quotation taken from David Hargreaves' book The Challenge for the Comprehensive School where Raymond Williams is taxed with overlooking: "the fundamental fact that a reform of the educational system involves a reform of the educators as well".[7] It seems to me that the major management task of the future will be the management of staff. Successful implementation of change in the curriculum will demand above all else, participation, by those who mediate it in the classroom. Now if there is one factor that distinguishes school from almost all the institutions with which it is compared, it is that teachers are neither just employees or purely professionals but instead both colleagues and organization people. To that extent, any degree of change will depend on a strong measure of conviction but equally a strong measure of trust and solidarity. Change is a high-risk enterprise and teachers are by nature conservative and cautious. It will tax the best skills of managers (particularly their interpersonal skills) to persuade teachers to regard their initial training not as an entitlement which they hug to their breasts but rather as a resource to be developed as their career progresses and on which they can build as they garner more daily experience in the craft of teaching and share that experience as they discuss it with colleagues. What is required on the part of teachers is a move from a limited professional role to an extended professional role.[8]

The second major curriculum task to be managed depends upon a recognition that the scale and variety of demand upon curricular time has far outstripped the capacity of the traditional "building blocks" of so-called "subjects" to contain it. The ability of some schools to achieve small miracles of adjustment, year by year, has perhaps concealed the truth for too long. Many of us deceived ourselves into believing that new demands, some of almost desperate social urgency, could be included here and there in the curriculum through merely token adjustments of syllabus. I no longer believe that such a solution offers any remedy. Can any of us with a care for the future be easy in conscience while little appears to be done in schools about social, economic and environmental themes, not to mention political understanding of local, national and global issues? What about questions of belief, moral values, sexual matters, community relations, family life, law and justice, health matters and hazards, including alcohol, drugs and tobacco, information technology? The list is not exhaustive and while one can agree with the HMI statement in A View of the Curriculum that: "Children cannot be forearmed with everything they may need to know or be able to do as adults, even if they were all ready to receive it".[9] Nevertheless there is, I believe, little room for complacency. One thing is certain and that is that curricular thinking in schools will have to be re-directed and the process of review and renewal will have to be set in motion sooner rather than later.

How will this process be managed? There are no easy answers but perhaps one or two hints at a possible way forward. There is now sufficient research evidence in the system that the management of curriculum change is an extremely complex and multifaceted exercise. It involves the setting in motion of a variety of tasks, involving many people and calling for decision-making and participation at a variety of levels. Above all, it calls for teacher commitment as well as for teacher mastery of new thinking and necessary skills. It is dependent on appropriate organisational change as well as administrative back-up and support. Finally, it calls for a realistic time scale. All of these factors have to be managed. Hence, the ever-growing demand for appropriate management training for heads and not just for heads. There is an increasing awareness that middle-management personnel such as vice-principals, senior teachers and heads of departments should also have access to management training. Teachers too are managers in their own right. Every day they perform a variety of different roles which require managerial skills; assessing pupil ability, managing classroom behaviour, distributing resources. Indeed, it might be said that teaching is an extremely complex management exercise involving, of necessity, the skill of dealing with multiple events which can occur simultaneously and are difficult to predict. Given the complexity and unpredictability of events in any classroom, teachers tend to look askance at change proposals, which are based on abstract or general principles and which do not specify concrete procedures for accomplishing change. Hence, the need for much more careful and specific forward-planning for curriculum change, in other words for management of the process.

In September 1984 a major programme of Curriculum Review and Development was launched in 47 schools more or less equally distributed across the five education and library board areas in Northern Ireland. In the longer term it is envisaged that all post-primary schools in the province will wish to participate in the programme, though the actual number of schools joining the programme each year will depend on factors such as the pace of development work in schools and the capacity of the programme's support personnel.

In general, it is envisaged that school staffs will review their current curricular provision with the objective of altering, where appropriate, the range, balance and sequence of their curriculum. It is likely that the content of the total curriculum will need to be revised and that areas of knowledge and experience appropriate to the late twentieth century be considered and included - for example, economic understanding, technological awareness, personal and social development. Attention will also need to be given to teaching methods which, it is intended, should lead to more active participation by young people in their own learning and to improvements in the quality of their learning experiences.

Among the interesting aspects of this programme there are a number which correspond to what are regarded as the minimum necessary for any successful implementation of change processes. Among these are:

1 a realistic time scale;
2 financial resources;
3 opportunity for in-service training;
4 external support and advice through consultancy;
5 management training.

Only time will tell if all these factors can be mobilised to the ultimate benefit of pupils and teachers. The challenge is a daunting one. In many senses it might be easier to bear those ills we have than fly to others that we know not of. It is always easiest to do nothing and take no risks, but "the worst ignorance" - in the stern phrase of Charles Peguy - "is not to act; the worst lie is to steal away".[10]

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PRINCIPALS' DELEGATION AND POSTS OF RESPONSIBILITY IN DUBLIN NATIONAL SCHOOLS

Donald Herron

ABSTRACT

Effective school administration is seen as important and is the task not only of the principal but also of promoted senior teachers in national schools today. Information on principals' involvement in tasks that may be viewed as not exclusively theirs was gathered as part of a project on principals' work behaviour in national schools. Some principals appeared to perform duties that could be delegated. One-quarter of the national schools in the survey either had no delegated areas of responsibility or did not delegate duties to all promoted teachers. The emphasis in delegation is strongly towards organisational and support duties (and even chores) and to insignificant degrees in the areas of curricular responsibilities or leadership and co-ordinating roles and duties. The level of professional development involved for promoted senior teachers is not considered adequate.

INTRODUCTION

The growth in the size of the average school at primary or post-primary level is documented in the Department of Education's statistics each year. Were this the only change in schools the problems of school administration would increase arithmetically. However, many additional developments in recent years have brought about a situation that enforces the view that the administration of schools is increasing geometrically. Among the pressures at primary level - the focus of this paper - are the increased openness of the school to outside forces and pressures, changing curricular demands, planning, accountability and increased participation in running of schools. The expectations of schools are rising also.

Teachers have traditionally had the security of classroom life as that place where they were responsible with the minimum of outside interference.[1] Most of what happened outside the classroom was viewed as the responsibility of someone else: the principal, the Board of Management, or even the Department of Education.[2] Administration and management provides for the teacher a managerial context within which they effectively can do their work.[3] But in the present climate of demands for participation and the current pressures on the administration of schools can one person - the principal - fulfil all the expectations? Have the staff members, even senior staff members no role to play in the administration of the school?

School administrators are variously prepared for the changing demands and circumstances. Looking to the future of Irish education, Dr. Coolahan[4] recently wrote:

> The idea of the gifted amateur continues to prevail for both clerical and lay administrative positions. Some succeed admirably on this basis but many are merely adequate or less than adequate for the increasing demands of senior positions. . . . Many diverse management and human skills are called for apart from the specifically educational responsibilities involved. . . It seems to me that the integral demands of senior administrative positions will impel more formal attention

> to educational administration in the years ahead. The positions of principal, vice-principal and the various responsibility posts in schools should be seen to require serious application from office holders. (p. 13)

The principal is regularly seen as the sole administrator in the school. In the situation of the medium-to-large national school, where all teachers save the principal have full class teaching duties, this may inevitably result. One consequence which has been recently documented[5] is the pace, variety and fragmentation of the principal's day where short amounts of time are spent on an amazing variety of tasks, ranging from the trivial to the critically important. The majority of tasks tend to be interrupted. When the principal's administrative attention was examined[6] it was found that over one-third of time was spent on activities concerned with administration per se, one-third on pupil-related issues (their welfare, progress or[mis-]behaviour), while just less than one-fifth of the time (18.1 percent) was spent on matters curricular and instructional. A minor amount of this latter attention was discussing or working with teachers. Principals spent considerable amounts of time in after-hours work.[7] There was a consciousness of a day filled with many administrativa and being controlled by the demands of others and less attention on what was considered important - ensuring the optimum learning experience by the child. Diggins[8] found a similar bias among post-primary principals in Ireland and wrote that they were: "so engrossed in solving day-to-day problems that their time is preempted from dealing with the broader, more fundamental aspects of their work" (p. 136).

It is in this context that delegation could be viewed, not just as a freeing of the principal from a mass of detail, but permitting the performance of tasks or the solution of problems at the most appropriate level. At this we now look.

DELEGATION

Vice-principals have existed in national schools for many years, though not always paid an allowance based on school size. Teachers promoted to posts of responsibility were recommended by the Ryan Tribunal on Teachers' Salaries, 1968,[9] which initiated the negotiations which led to the introduction of the A- and B-posts of responsibility in the early 1970s. The tribunal foresaw duties being specified and "clearly and explicitly delegated" (p. 14). The Department of Education issued guidelines on what areas of responsibility might be delegated in 1973.[10] The principal had a clear role in recommending areas of responsibility while the managing authority approved.[11]

Several administrative difficulties existed and have persisted: no guidelines on internal school organisation were issued to give time to promoted teachers to perform their delegated duties; posts of responsibility were created according to a points rating that was more favourably biased toward older pupils; appointment was by seniority in the overwhelming number of cases further constraining delegation; inadequate ancillary and support services; and due to the perception at the time coupled with the manner of implementation of the posts' agreement, they were seen by many as an additional long-service increment in lieu of real promotion - a principalship.

However, managerially, effective delegation is difficult to achieve. Text-books on management and organisations[12] will include a section on delegation and warn their manager-reader of the dangers and pitfalls of faulty delegation: responsibility without authority, interfering in the area delegated or the abdication of responsibility after delegation. The rationale for delegation is as much for greater operational efficiency as it is for the training and development of the leadership qualities of the post-holder. Handy[13] also comments: "Delegation is one of those topics that has fascinated the practitioner and those who write for him, but has largely been ignored by researchers . . . It is however, . . . a real and pressing dilemma for many managers" (p. 450).

So, along with the administrative difficulties real and perceived, the principal is faced with what is considered a managerially difficult task and this without the necessary preparation, planning or training. It has also to be effected among professionals, a group qualitatively different in organisational values and behaviour to other workers.[14]

Coulson[15] in his research on the roles of the deputy head and head teacher in English primary schools found differences among the two groups on the appropriate role they considered for each and noted that most deputy heads were limited to a series of routine tasks. This often led to levels of dissatisfaction. These expressions of dissatisfaction were, he stated, consistent with studies in industry which showed that job-satisfaction is related to such factors as recognition, opportunity for professional growth and achievement and involvement in and responsibility for decision-making (p. 46). Thus effective delegation is linked to motivation of subordinates and real participation in management.

Moreover, rather than focussing exclusively on resource-based obstacles (time, personnel or contracts) Coulson viewed the principal's perception of his/her own role as the major constraining factor in the non-delegation of areas of responsibility. The delegation of adequate areas of responsibility in contrast to a set of discrete support chores or tasks would involve for the principal,[16] he stated: "an abdication of responsibility on his part; he would feel that he had lost his grip on the school, in fact, he would feel that the school was no longer *his*" (Coulson and Cox's italics; p. 103). This close identification of the school as the principal's in a very special way creates a heightened sense of responsibility for everything and everyone in it.[17] This may cause friction between the perceived area of teacher responsibility - the classroom, and that of the principal - the school as a whole. It may also work toward a reduction of trust in the subordinate's equally (or more) effective discharge of delegated duties. This trust in the experience, competence and professional commitment of the promoted teacher is an essential feature of effective delegation.

In the foregoing sections the constraints on both teachers and principals have been outlined as have the administrative constraints. We need now to examine, with the data available for Ireland, what areas of responsibility (or tasks) principals delegate or retain.

SURVEY AND DATA

The managerial work behaviour of Dublin primary school principals has been recently examined. The main instrument was a diary method empirical survey of medium-to-large school principals' working days. Forty percent of the total number, 102 principals, were randomly chosen and stratified for sex, location and type of school. These were then invited to participate in the diary study, to which 56 agreed. Forty returns were used for analysis, representing 15 percent of the original population. This two-step procedure was adopted as a result of a perusal of the literature. One researcher, Rosemary Stewart, reported the difficulties encountered in obtaining cooperation among managers in maintaining a diary for research purposes.[18]

A questionnaire accompanied the main diary instrument. It was designed to gather information on school organisation and administration to complement the diary information. The data reported in this paper is based on the questionnaire responses which were coded and computer analysed. Frequencies and crosstabulations were obtained.

Firstly, it is proposed to look at a selection of activities in which principals were asked to state their personal involvement. These are presented in Table 1, with percentages involved or not involved.

The first four tasks in Table 1 are among those which may be delegated (as suggested by Circular 16/73). The following three (numbers 5 to 7) might be viewed as the responsibility of the individual teacher whilst the final two, numbers 8 and 9 are responsibilities of the Board of Management of which the principal and one other staff member are members. Significant among the latter (numbers 8 and 9) is the almost unanimous involvement in arranging substitution for absent teachers. But in the performance of other Board duties - correspondence, finances and other activities (dealing in the main with maintenance tasks) - principals are also highly involved.

TABLE 1

PRINCIPALS' PERSONAL OR USUAL INVOLVEMENT
IN SELECTED TASKS (N = 40)

	Task	% Yes	% No
1	do you personally run the bookroom?	56	44
2	do you personally purchase the school's textbooks for the year?	49	51
3	do you personally distribute the audio-visual aids?	15	85
4	do you personally supervise :		
	(a) morning arrival of children?	74	26
	(b) lunchtime exit to yard?	67	33
	(c) lunchtime entrance from yard?	74	26
	(d) afternoon dismissal?	62	38
5	do you usually ferry injured children to doctor or hospital?	54	46
6	do you usually meet parents before they call to an individual teacher?	36	64
7	do you personally bring children in from the yard each morning?	31	69
8	do you arrange substitution?	95	5
9	do you perform, on a regular basis, for the Board of Management :		
	(a) correspondence?	54	46
	(b) finance matters?	46	54
	(c) other activities?	59	41

In all the schools surveyed there were eight board members. Are principals taking on themselves board duties disproportionate to their membership? Or is delegation to the principal by the board excessive? Or do principals, seeing it as part of their role, take on the duties of other board members? And why? Whichever is the answer, the principals in this survey, as members of the team charged with the management of the school, have high levels of board duties to perform.

Looking at the first four items in Table 1 it is notable that the care and distribution of audio-visual aids is the area of least personal involvement. The area of discipline - entry and exit from the building - is in contrast an area of higher involvement for principals. Just over half personally sell requisites and half purchase the annual stock of textbooks. These four areas were among those recommended for delegation. Only one of these would appear to be delegated to any great extent.

The remaining items, numbers 5 to 7 in Table 1, may be viewed as areas of responsibility for individual teachers. Of these, the first, ferrying injured children to a local doctor or to the nearest hospital, presents real administrative difficulties which are not easy to resolve. Item number 6, meeting parents before they meet the teacher teaching their child appears like duplicated effort and points to unclarified roles for the two, the principal and the teacher, in regard to home-school links. Other factors may also be at work here. However, it is an area of involvement for just over one-third of principals. Similarly, just under one-third of the principals bring the children in from the yard each morning. This is a teacher responsibility. It would be of interest to know the reasons for principals' levels of involvement here. The second two items here (numbers 6 and 7), areas of teacher responsibility, are performed by a significant minority of principals and may tie up principals' time to the exclusion of other concerns.

Secondly, what are the areas of responsibility delegated to vice-principals and promoted teachers? In nine of the returned questionnaires, 22.5 percent of the 40 returns, the status of the post-holders was identified (vice principal, A- or B-post-holder). An approximate tally of the total number of posts available to the 40 schools was calculated from the information provided in the questionnaires, i.e. the type of school and the number of pupils. This total was calculated as 160 posts. One hundred and twenty-nine posts were recorded, or 81 percent of the available number. Five schools had no delegation of duties at all and a further five indicated that only some of the promoted teachers had specific areas of responsibility (12.5 percent in each case). In one of these cases the areas of responsibility were being revised at the moment. All the non-delegating schools had male principals as had two of the five partially delegating schools. Table 2 lists the areas of responsibility delegated, with the first part of the table containing those mentioned in 10 percent or more of the schools.

The full listing points up a number of details. Some areas of responsibility (those at the top of the table) are features of delegation in many schools. The remainder of items comprise a vast variety of tasks delegated. Over the whole list the quality of the task delegated is equally varied, ranging from the routine and even trivial to those with considerable responsibility. It should also be pointed out that the task-time involved for teachers differs: for some it

TABLE 2

THE AREAS OF RESPONSIBILITY DELEGATED TO TEACHERS AND THE NUMBER AND PERCENTAGE OF SCHOOLS IN WHICH THEY OCCUR

Area of responsibility	Number of schools delegating	%
Audio-visual aids	22	55
Library	21	52.5
Register and/or rolls	16	40
Yard and break supervision	14	35
Sport and games	11	27.5
School choir	6	15
Savings	5	12.5
Tours and outings	5	12.5
Litter collection and school grounds	4	10
First aid	4	10
Bookroom	3	7.5
Milk scheme administration	3	7.5
Road safety	3	7.5
Dividing classes (on teacher absence)	3	7.5
Staff duty roster	3	7.5
Requisites for staffroom	3	7.5
Music throughout the school	3	7.5
Art and craft materials	3	7.5
Sandwich scheme administration	3	7.5
Hall arrangement for meetings	2	5
Head of section of the school	2	5
Religion materials	2	5
Teachers' library	2	5
School texts	2	5
Finance	2	5
Fire drill	2	5
Poster and art displays	2	5
Files	2	5
Supply of reading books	2	5
Watering plants	1	2.5
Escorting children swimming	1	2.5
Cuntais Miosuil collection	1	2.5
School reading programme	1	2.5
Tests	1	2.5
Curriculum	1	2.5
Irish throughout the school	1	2.5
Art and craft throughout the school	1	2.5
Physical education throughout the school	1	2.5
Instrumental music through the school	1	2.5

TABLE 2 continued

Area of responsibility	Number of schools delegating	%
Responsibility for newly-trained teachers	1	2.5
Liaison with guidance clinic	1	2.5
Infant intake	1	2.5
Locking up	1	2.5
Fund-raising	1	2.5
Drama in the school	1	2.5
Lost property	1	2.5
Towels	1	2.5
Teachers' Register	1	2.5

means a regular or daily commitment or for others a commitment at a special time of the year only. Little description beyond that appearing here was returned in the questionnaires so that any one title in this list hides the reality of the task for the post-holder: the demands, the levels of achievement and recognition, discretion for decision-making or authority, and the potential for professional development.

Ancillary staff was available to schools but was by no means universal: one-third of schools had full-time secretaries and one-half had full-time caretakers. The remainder either shared the facility with another school or had none at all. It was not possible to examine the impact of this facility on principals' involvement nor list the range of activities delegated to ancillary staff.

Both John [19] and Whitaker[20] provide a simple and clear classification system for examining delegated duties in schools. The delegated areas may be viewed as: (i) organisational, being involved with non-curricular areas of school life; curricular; or (ii) leadership roles having responsibilities which can be loosely termed co-ordinating. It is proposed to use this model here to examine the areas delegated in this sample of schools.

Posts from the above list that could be considered curricular included responsibility for Irish, Music, Art and Craft throughout the school, the school-reading programme, drama and testing. In all, 11 areas or 6 percent of the total come under this heading. Those that could be considered leadership or co-ordinating responsibilities included deputising for the principal, head of section of the school, responsibility for newly-trained teachers and infant intake. They amount to nine in all, 5 percent of the total. The remainder, organisational or support in nature, amount to 88 percent. Post delegation is biased toward the smooth running of the school in the main rather than toward curricular responsibilities or toward the development of leadership roles and skills. The bias toward organisational types of delegation might suggest that the principals acted as leaders in curricular and instructional matters. This was not borne out.[21]

Did principals differ in their delegating? Yes. Female principals delegated more than male principals, and religious more than lay principals.

Three of the 40 schools' posts of responsibility are given here to illustrate the combination of posts in a school. The first school had a staff of 23 teachers, 820 pupils including a special class and was a full-stream school. The posts were:

1 break supervision; register;
2 audio-visual aids; fund-raising;
3 sport; school grounds;
4 savings; safety first;
5 school reading programme; tests; gifted pupils;
6 library.

The second school had 26 teachers and included a number of special classes and remedial teachers. It was also a full-stream school with 488 pupils. Its posts were:

1 library;
2 responsibility for yard duty;
3 choir;
4 grant money;
5 equipment;
6 staffroom requirements.

The third school was smaller with 13 teachers and included a special class, with 398 junior school children. It also specified the status of the posts. These were:

1 (v.p.) girls' register; extra yard duty;
divide classes on teacher absence;
2 (A post) audio-visual aids; extra yard duty;
3 (B post) boys' register;
4 (B post) extra yard duty;
5 (B post) extra yard duty.

The remaining 32 schools which had delegated posts were broadly similar to these three. Five had no duties delegated.

DISCUSSION

From the limited information obtained from this survey a number of points can be highlighted. It should be borne in mind that all principals are not in similar circumstances in regard to school size, type, school age or location. However, a school ethos or climate exists and will facilitate or constrain or even restrict post delegation. School ethos is amenable to change over time and is a principal's responsibility.

The areas of responsibility that are delegated are, in the majority of cases, in the sphere of support and administration. This aspect of total school administration is characterised by many discrete tasks and chores which are easily identifiable for delegation purposes. They can usually be performed without the necessity for the development of the human and communicational skills required for curricular and leadership-type areas of responsibility. Many call for dependability rather than administrative skill. They do ease the level of administrative detail that the principal has to attend to. Without comparative information we cannot say with certainty what principals are enabled to devote more time to, or whether the demands of the job have been reduced to reasonable levels. Many changes since the introduction of posts of responsibility have added to the principals' task load: Boards of Management (1975), increased discipline problems, closer home-school links, transfer to post-primary school, etc. The emphases, pastoral and administrative, remain, in spite of posts of responsibility, as the dominant areas of principals' managerial behaviour.

The core task of the school, teaching and learning, is one for which the individual teacher remains responsible. The co-ordination of curriculum and instruction is a leadership and communication task which principals find difficult to attend to; nor is it delegated to other promoted teachers in the school in any significant way.

It is an unfortunate isolation for it acts to reduce the scope for professional development, the effectiveness of in-service education and training and a staff involvement in curriculum development and evaluation.

Leadership roles and responsibilities do not feature in delegated posts in any major way. Whether or not a teacher wishes to achieve promotion, there is little leadership skill development being facilitated. Examining some of the posts in detail could cause some alarm, because the demands, not just for leadership, but even the professional skills and experience required are not of a generally high level. In regard to some of the areas of responsibility one could ask what significant contribution the teacher makes or what satisfaction or achievement the promoted teacher feels. Satisfaction is not a function of monetary rewards alone, but is also dependent on such factors as recognition, achievement and the intrinsic value (to others as much as to self) of the task itself.[22]

Principals are untrained for the difficult managerial task of delegation. Their own previous pre-promotion experience does not offer learning in these skills. Their view of their appropriate role and those of promoted teachers has not been the subject of critical examination. As a result, they often experience difficulty in delegating areas of responsibility and so hold on when responsibilities may well be delegated; moreover, additional responsibilities, not exclusively theirs, are attended to. The administrative obstacles, time for promoted-teachers' post performance, seniority or insufficient posts in the school, may often be used as rationalisations for non-delegation. Delegation where there is perceived and real resistance may often prove troublesome and destabilise existing relationships. It is sometimes personally easier to change nothing. But is it professionally beneficial?

Suggestions for future developments would include:

1 an appraisal of the roles of principal and post-holders in the administration of the school;

2 the development of school policies and objectives and so facilitate the clear identification of areas of responsibility for delegation;

3 an examination of the teacher's role in the internal organisation of the school so as to develop a clear rationale for effective delegation not alone for the achievement of school goals but also the professional and personal development of the teacher;

4 the inclusion in administration courses for teachers and principals strategies for effective participation and effective delegation.

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ORGANISATION STRUCTURE AND CLIMATE - A STUDY OF FOUR LARGE COMMUNITY SCHOOLS IN THE DUBLIN AREA

Kevin O'Meara

> Many editors accept the assumption that organisational characteristics of schools, both formal and informal, planned and unplanned, deliberate and accidental, do have a profound impact on the work of students, teachers and administrators. 1

This quotation from Bishop and George underlines the fact that the forms of organisation within which people work influence their perceptions and behaviour. This is true for teachers working in schools, just as it is for employees in other kinds of organisations. The study on which this paper is based was of an exploratory nature. The object was to gain an adequate understanding of the internal functioning of four selected schools with regard to a range of organisational characteristics.

Large schools have become increasingly common in Ireland in recent years, particularly with the growth of new community schools in urban areas. This has implications for principals and teachers in terms of such central organisational processes as decision-making, communication, leadership behaviour and motivational forces.

Community schools, which began to appear in Ireland in the 1970s, were the culmination of attempts to reform the post-primary sector of Irish education. The object was to provide free, comprehensive education for all children in addition to catering for the educational and developmental needs of adults in the locality. The school was seen as the focal point of the local community and its facilities were to be available for community use. The emphasis was on large educational units in order to ensure maximum utilisation of resources and to avoid unnecessary and wasteful duplication. The optimum size of school was envisaged as around 800 students.

Most of the new schools established in recent years have been community schools. These community schools tend to be large, a feature which is particularly noteworthy in the Dublin area, where many of the schools have already approximated to, or risen above the optimum figure of 800 students.[2] The implications of this fact, in terms of organisational structures and processes, formed the main focus of this study.

The study of schools as organisations emerged in the United States of America in the late 1950s;[3] it is, therefore, of relatively recent origin. Many authors have commented on the paucity of worthwhile empirical studies in schools, particularly in the school management area.

Investigations of the structural properties of schools indicate a number of independent dimensions. Centralisation and formalisation are the dimensions which have received closest attention. A number of recent studies[4] suggest that a low level of centralisation (i.e. less hierarchical control, more participative processes) yields the most favourable results in terms of teacher satisfaction and effectiveness. The effects of formalisation are more complex: there is evidence to suggest that teachers favour a relatively structured job environment with rules and regulations that specify the parameters of the job. This must co-exist, however, with a high degree of professional autonomy and the absence of supervision and tight prescriptions with regard to their own work.

The increasing tendency towards large schools has drawn attention to the complexity of school organisation and administration. The larger the school, the more important, it seems, is the quality of its administrative procedures and service. It is suggested that large schools highlight the need for a more explicit formulation of organisational structure, i.e. greater clarity of function and procedure, more explicit channels of communication, more delegation of authority and responsibility by the principal, and a pastoral system which increases students' sense of identification with the school.[5]

The notion of leadership is a dominant theme in the literature on school organisation. Initiating structure and consideration are two of the most frequently used descriptions of leader behaviour, derived from the Ohio State leadership studies and associated in educational administration with the work of Andrew Halpin.[6] Initiating structure refers to the leader's behaviour in delineating the relationships between himself and members of his group and in endeavouring to establish well-defined patterns of organisation, channels of communication and methods of procedure.

Consideration refers to behaviour indicative of friendship, mutual trust, respect and warmth in relations between the leader and members of his staff. Although these styles are sometimes seen as contrasting, it was Halpin's belief that effective leadership requires high performance on both dimensions. Subsequent research findings indicate considerable support for this hypothesis.[7]

Greater levels of staff participation are seen, by some writers, as not alone desirable but also necessary in large schools. Richardson makes the point:

> The real problem about the increasing size of schools is not just that there are more people around. It is that leadership must be dispersed more widely - that a greater number of the experienced people in the staff group must be given more power. 8

Despite obvious complexity in the map of desired participation, the wider dispersion of leadership and authority throughout the school can confer enormous benefits in terms of teacher satisfaction and professional development.

Some recent studies,[9] particularly in secondary schools, indicate a clear need for more participative structures in Irish schools.

So, what are the special organisational characteristics of large schools? In keeping with other large organisations, they are likely to be more specialised, have more regulations, more documentation and display more formalised procedures. There is evidence to suggest that teachers welcome well-defined patterns of organisation, channels of communication and methods of procedure.[10] For although formalised procedures may smack of "undesirable" bureaucratic structures, they are necessary in the interests of organisational clarity and can obviously exist side by side with some of the aspects of organic organisation, i.e. involvement in decision-making processes, mutual co-operation among teachers and strong commitment to the organisation as a whole.

METHODOLOGY

Concepts

An increasingly popular means of investigating the internal functioning and characteristics of a school is to examine its organisational climate, which can be described - in general terms - as the common orientation and perceptions of its members with reference to certain characteristics of the organisation.

Climate is influenced by a host of organisational factors, both formal and informal, including structural dimensions and the attitudes, values and aspirations of fellow workers. The manner in which leadership is exercised is seen by some theorists as exerting the greatest influence on the climate of an organisation.[11]

Climate has been an influential, but controversial concept. There has been general agreement about its importance, but much less agreement as to what the term actually means.

Halpin and Croft introduced the notion of organisational climate to educators and developed one of the most widely used instruments for measuring school climate - the Organisational Climate Description Questionnaire (O.C.D.Q.). On the basis of research conducted in the United States they identified six types of organisational climate on a continuum from open to closed.[12] By definition, the open climate is the most desirable. In schools which feature an open climate teachers work well together, enjoy a high level of morale and obtain considerable job satisfaction. The principal's policies facilitate teachers' accomplishment of their tasks and he sets an example by working hard himself (high thrust). He can either criticise teachers or go out of his way to help a teacher (high consideration), and he allows leadership acts to emerge from his staff.

In the closed climate, by way of contrast, teachers obtain little satisfaction in respect to either task achievement or social needs. The principal is ineffective in directing the activities of teachers and is not inclined to show interest in their personal welfare.

Studies of organisational climate in schools suggest that those organisations which display an open or favourable climate are characterised by the following features:[13]

(a) patterns of leadership behaviour through which the leader sets a high example himself, is supportive and allows leadership acts to emerge from his staff members.

(b) Patterns of communication which are authentic and free in all directions.

(c) Influence is spread throughout the organisation and a teamwork approach to problems at all levels is in evidence.

(d) Teachers feel reasonably "self actualised" as their varying talents and abilities are used effectively.

(e) Commitment to the school's objectives is strong because teachers feel involved in the organisation.

(f) An atmosphere of interpersonal trust and co-operation exists and the morale of teachers is high.

Do various organisational climates produce different outcomes in terms of effectiveness? This is a particularly complex question in the case of schools, where appropriate measures of effectiveness seldom find unanimous acceptance. There is, nonetheless, a growing body of evidence which suggests a strong link between climate and effectiveness. Likert, for example, cites evidence to suggest that schools which are nearer to System 4 (participative) in their administrative style than to System 1 (exploitive authoritative) are more effective in terms of teacher motivation, satisfaction and morale, and also in terms of student motivation and performance.[14]

So, organisational health, organisational climate and organisational effectiveness can be seen as interrelated and, and in many respects, overlapping concepts. The organisational climate reflects the internal state and health of the organisation and, some would argue, its effectiveness.

Schools

The project was conceived as an exploratory study of the organisational structure and climate of four large community schools in the Dublin area.[15] It was felt that four would constitute a manageable and broadly representative sample and that choosing the one type of school (i.e. with the same management structure) would more readily admit comparative analysis.

The five schools with the largest enrolments were selected, one for the pilot study and the other four for the main study. The lowest enrolment figure for the schools involved was 778.

Instruments

It was decided to employ two methods of investigation:

(i) a detailed interview with the school principal in which he outlined school structure and procedures (interviews were taped, lasting 60 - 90 minutes);

(ii) the administration of a school climate questionnaire to all teachers in the school in order to obtain their perceptions of several different aspects of school organisation.

(i) An interview schedule was designed as a basis for the interview and sent to each principal some days in advance. The items on the interview schedule emerged from an examination of the relevant literature on school organisation and climate and included the following factors:

(i) internal school organisation (e.g. year structure, house system, etc.);
(ii) allocation of post holder's duties;
(iii) decision-making and communication process;
(iv) setting and implementation of school goals;
(v) professional development of teachers;
(vi) control and supervision of teachers;
(vii) staff cohesiveness;
(viii) adaptation to local environment;
(ix) innovativeness.

Many of the organisational dimensions featured in the interview with the principal also featured in the School Climate Questionnaire. This was important from the point of view of interrelating evidence from the two sources.

(ii) A School Climate Questionnaire is designed to discover how teachers assess the overall organisational climate and health of their schools. Climate can, therefore, be defined operationally as the sum of the perceptions of the individual teachers working in that school. Numerous organisational factors influence the way in which a person perceives the organisation in which he works. In a community school context such factors may include:

(i) the setting and implementation of school goals;
(ii) decision-making processes;
(iii) effectiveness of communication systems;
(iv) interaction - influence processes;
(v) clarity of organisational roles and procedures;
(vi) the leadership style and practices of the principal;
(vii) opportunities for professional development (of teachers);
(viii) staff morale and cohesiveness;
(ix) adaptation to changing demands;
(x) innovativeness;
(xi) planning.

A forty-eight item questionnaire was designed which covered sixteen aspects or characteristics of school organisation, with three items devoted to each characteristic. Although each of these characteristics has in itself a bearing on the motivation of people at work, it is as a unified, interactive system of organisational conditions, norms and practices that their influence can be most adequately understood.

Response

The overall response rate from teachers was 59.4%, ranging from 48% in the school with the lowest response to 72% in the school with the highest response. Given the sensitive nature of the study, this was regarded as satisfactory.

It is noteworthy that there was a considerably higher response rate from female teachers than from male teachers. This was true for each individual school as well as in the overall context. This is a most interesting phenomenon which the writer has not seen adverted to in climate survey studies before.

Findings

The data for each school were analysed separately. The main points to emerge from the interview with the principal were extracted and presented. An analysis of the teacher responses to the School Climate Questionnaire followed. A short profile of each school was then constructed on the basis of both sets of data. Four distinct profiles emerged, ranging from highly favourable to quite unfavourable.

Dominant themes from Interviews with Principals[16]

There were many points of similarity among the four schools with regard to internal organisation:

(i) all were organised on a year group basis, i.e. each year formed a separate unit with a year head in charge assisted by a number of class teachers.

(ii) Duties allocated to teachers holding posts of responsibility were largely of an administrative or pastoral nature and were wide ranging.

(iii) The degree of authority and responsibility delegated to teachers holding posts was quite substantial. Although the sample here is very limited, it suggests that teachers in community schools have a far greater degree of involvement in decision making and are delegated considerably more responsibility than their counterparts in secondary schools.

(iv) Communication is regarded as a critically important dimension of large schools by all principals. It is clear, however, that systems of communication are much more highly structured or formalised in some schools than in others.

(v) It is clear that very little of an innovatory nature - particularly with regard to school programmes - has taken place in these schools. (Innovation was originally seen as an important characteristic of community schools.)

Climate Questionnaire Responses

The understanding and setting of school goals, regarded by some theorists as a prerequisite for healthy organisational functioning, are problematic for many teachers in each of the four schools. Less than half the respondents in each school agreed that teachers are helped to develop a close understanding of the goals of the school in terms of what is expected of them, and that principal and teachers work co-operatively in setting high performance goals for the school. The rather diffuse nature of school goals may be a factor here; it may also reflect, however, a tendency to disregard discussion of school goals, or to take them for granted.

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There were differences among the schools in relation to responses to many of the climate variables. Differences were found to be significant (at .05 level) in the case of twenty-one of the forty-eight climate variables. Differences were most marked in the following areas:

Professional development of teachers
Principal's thrust)
Principal's consideration) leadership
)
Level of planning

A comparison of the two schools with the most favourable and least favourable responses along these four characteristics highlights the wide range of variation involved (Table 1).[17]

The relevant statements used to elicit the data recorded in Table 1 as well as their corresponding variable numbers are as follows:

Professional Development

Variable
No. 10 The principal takes a strong and active interest in promoting the professional development of staff members.
No. 26 Teachers are given time and encouragement to participate in various forms of in-service education and professional development.
No. 42 Teachers have genuine opportunities for using their professional initiatives through the delegation of authority by the principal.

TABLE 1

COMPARISON BETWEEN THE TWO SCHOOLS WITH THE MOST FAVOURABLE (SCHOOL 2) AND LEAST FAVOURABLE (SCHOOL 1) RESPONSES RESPECTIVELY, ALONG FOUR DIMENSIONS OF ORGANISATIONAL CLIMATE

		School 1			School 2		
	Variable	SA +A	U	SD +D	SA +A	U	SD +D
Professional Development	10	11.8	23.5	64.7	75.8	12.1	12.1
	26	17.6	41.2	41.2	72.7	12.1	15.2
	42	51.2	15.2	33.3	84.8	12.1	3.0
Principal's Thrust	14	29.4	32.4	38.2	93.9	3.0	3.0
	30	23.5	29.4	47.1	78.8	12.1	9.1
	46	55.9	14.7	29.4	97.0	0	3.0
Principal's Consideration	18	55.9	14.7	29.4	93.9	6.1	0
	34	70.6	20.6	8.8	100.0	0	0
	50	78.8	9.1	12.1	100.0	0	0
Planning	22*	38.2	20.6	41.2	9.1	9.1	81.8
	38	44.1	20.6	35.3	75.8	6.1	18.2
	54*	63.6	18.2	18.2	18.2	15.2	66.7

Key to symbols used:

SA + A = strongly agreed or agreed
U = undecided
SD + D = strongly disagreed or disagreed

The most favourable responses occur in the SA + A column, except where there is an asterisk to denote negatively phrased statements - in these two cases the most favourable responses occur in the SD + D column.

Principal's Thrust

Variable

No. 14 The principal sets an example for teachers by working hard himself.

No. 30 By his actions and approach, the principal helps to generate a spirit of commitment and hard work in this school.

No. 46 The principal is constantly trying to improve the way in which things are done in this school.

Principal's Consideration

Variable

No. 18 The principal is genuinely interested in the personal needs and welfare of the staff.

No. 34 The principal makes allowances for a teacher who has a personal problem to cope with.

No. 50 The principal generally behaves in a friendly and supportive manner towards teachers.

Planning

Variable

No. 22 The prevailing philosophy in this school seems to be one of "management by crisis".

No. 38 Ample planning and consultation takes place in this school before important changes are made.

No. 54 Because of a preoccupation with day-to-day matters, planning for the future is neglected.

In addition to the four areas highlighted in Table 1, the following characteristics revealed significant differences to a less marked degree:

(i) Downward communication
(ii) Procedural and administrative hindrance
(iii) Staff morale
(iv) Innovativeness
(v) Adaptation to local environment.

The fact that such wide variations emerged between the schools over a range of organisational characteristics has undoubted implications for school organisation and management.

DISCUSSION

The evidence from this study suggests that organisational structures and processes within schools differ - and differ significantly in some respects.

It is important that principals and those in senior positions in school management be aware of the varying impacts of different kinds of structures and processes on members of their teaching staffs. It is equally important that they understand something of the range of organisational characteristics or dimensions which contribute to those varying impacts.

The leadership behaviour of the principal (in terms of the personal commitment and inspiration he provides for others) has consistently emerged as one such factor. The level of organisational clarity and forward planning which exists in the organisation is another. The opportunities afforded by the school for the professional growth and development of teachers are important also; the attitudes and actions of the principal with regard to teacher involvement in various forms of in-service training, for example, can significantly affect the character of the organisation.

An understanding of the crucial factors which contribute to a healthy or open school climate is particularly important for school administrators in the light of the mounting evidence which suggests close links between organisational climate and effectiveness. If school environments are seen to differentially affect staff performance and satisfaction on the one hand, and student achievement on the other, then it is of the utmost importance to isolate the crucial characteristics involved. Organisational climate could then be planned and managed in a purposeful manner.

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CHOICE OF SCHOOL, COMPETITION, RESOURCE ALLOCATION AND CURRICULUM CHANGE : A CASE STUDY

Michael Hanley

INTRODUCTION

Two effects, to a large extent unrecognised, of the changes of the 1960s in Irish education were the introduction of direct competition between the secondary and vocational sectors and the provision of a wider choice of school for most parents with the abolition of fees in many schools. This case study examines the effects of direct competition and the existence of parental choice of school on the development of relations between schools, on curricular provision, on resource allocation and on home-school interaction.

The area chosen for investigation contained nine national schools which together formed the catchment area feeding two post-primary co-educational schools - a vocational school and a secondary school. The two post-primary schools were situated in a small country town and most of the national schools were located in the surrounding countryside. The data were collected by means of three separate questionnaires: (a) to all pupils about to transfer from national school to post-primary school (and in attendance on the day the questionnaire was administered; (b) to a sample of mothers of the same pupils; and (c) to the principal teachers of the two main post-primary schools in the catchment area. Additional information was supplied by the nine principal teachers of the national schools.

THE CHANGING FACE OF LOCAL POST-PRIMARY PROVISION

Up until the 1960s the vocational and secondary schools in this particular area were quite distinct, although similar in terms of size. The older of the two, the vocational school, founded soon after the passing of the Vocational Education Act, was a small co-educational school teaching a junior cycle programme, dominated by the Group Certificate and its underlying rationale.[1] The other school, the secondary, founded by a female religious order in the late 1940s, was an all-girl school, teaching an academic programme leading to the Leaving Certificate. The two schools could be clearly differentiated in terms of their aims, intake, curriculum, career preparation and access to third-level education. The reforms of the 1960s, however, started a complex process of change and re-structuring in this particular locality.

The larger of the two schools, the secondary, experienced a rapid growth in pupil enrolment after the introduction of free education and transport, although there had been an upward trend even prior to this. This was further accelerated in 1970 by, perhaps, the greatest single innovation in the school's recent history, the decision to admit boys. This move was reported to have been prompted by the closure of a small secondary school in a nearby village, and a request from the Department of Education for the school to consider the admission of boys.

During the course of the 1970s major innovations were made at junior and senior cycle level and with respect to the development of a more comprehensive educational environment. New subjects were introduced including Science, Woodwork and Mechanical Drawing at junior cycle; Biology, Economics and Physics at senior cycle; and Physical Education at both levels. Latin was dropped from the curriculum altogether and Typing and Shorthand, which had been introduced in the early 1970s, were eventually dropped when it was decided to re-allocate the teacher (after appropriate training) to remedial work. Recently, as well as starting the remedial programme, the school has taken on a Guidance Counsellor and was just in the process of initiating a Pastoral Care system while the fieldwork for this study was being undertaken.

The extent of the change in the school is illustrated by three of its recent decisions. Firstly, the decision to drop Latin, one of its traditional hallmarks, in spite of the fact that the principal was a former Latin teacher, who felt that the subject was of immense value, suggests a lessening of its academic orientation. Secondly, a very important decision was taken after the vocational school announced its decision to withdraw from a co-operative arrangement whereby it provided instruction in Woodwork to secondary pupils. The secondary school decided to lay off a teacher (a member of the religious community) in order to employ a Woodwork teacher, which shows how important this "non-academic" subject had become. Thirdly, the decision to discontinue Shorthand and Typing and to re-allocate the teacher to the remedial area indicates a commitment to the less able. Each of these decisions indicates a movement away from the school's traditional academic orientation.

The vocational school did not experience the same growth in terms of pupil intake as the secondary school. Enrolments reached their peak in the school year 1974-75, but numbers declined somewhat since then. Undoubtedly, the single most important change of recent times was the school's decision to introduce a senior cycle (September, 1975). Up until this the school had only been able to provide a junior cycle programme, as the Department of Education had refused to sanction a senior cycle. This decision allowed for the introduction of a Leaving Certificate programme incorporating some of the existing school subjects but taught to this higher level, plus a range of new subjects not previously taught in the school - such as Business Organisation, Building Construction, Technical Drawing, Engineering Workshop and Theory and Biology. Another recent development has been the introduction of a Post-Leaving Certificate secretarial course and the dropping of Shorthand and Typing from the junior cycle programme. Physical Education seems to have had a rather chequered history with only periodic appearances on the school curriculum during the last ten to fifteen years.

The major innovation in the vocational school has been the introduction of a senior cycle, which for such a small school represents a major shift in emphasis and resources towards a much more academic orientation. It is also significant that when the vocational principal was questioned about special provision for slow learners he intimated that there had been such provision in the past but that this was no longer the case. The introduction of the Leaving Certificate, with a reasonable range of subjects has had considerable implications in terms of staff allocation and under such circumstances it would be very easy to see why special provision for slow learners would pose a problem, at least in the short term.

Both schools appeared to be providing fairly comprehensive programmes of extra-curricular activities. Both made provision for a variety of indoor and outdoor games and activities plus debating. However, music (including the opportunity to learn a variety of instruments) was only provided by the larger school -

the secondary. Interestingly enough, both schools commenced organising annual trips abroad about the same time (1973) - both having previously organised school trips within the country. Likewise, both schools appeared to foster a strong religious environment by providing a religious education programme throughout the school, chaplaincy facilities, class masses and annual retreats.

There was some talk of the two schools amalgamating during the early part of the 1970s but this was totally rejected by the management of the secondary school, although the vocational school was reported to be favourable to the idea. However, co-operation between the two schools did emerge in the early 1970s, despite a certain disquiet in the vocational school over the decision by the secondary school to admit boys. Basically the agreement consisted in the vocational school providing classes for the secondary boys in woodwork and mechanical drawing and the secondary school providing advanced tuition for vocational pupils at Intermediate Certificate level in French, Irish and English. Furthermore, at least up until the introduction of their own senior cycle, vocational pupils could transfer to the secondary school for Leaving Certificate. This co-operation gradually ceased as the arrangement with regard to advanced French, Irish and English lapsed and in the summer of 1976, the vocational school announced that it could no longer make provision for Woodwork and Mechanical Drawing on account of its new commitment to a senior cycle. Thus co-operation effectively ended six years after it began.

NATURE AND DIRECTION OF CHANGE

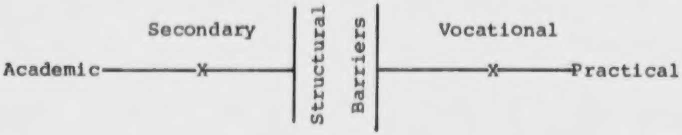
Both schools have clearly undergone considerable change. The decision by the secondary school to become co-educational and the decision by the vocational school to commence a senior cycle removed two criteria on which the schools had traditionally been differentiated (i.e. in terms of academic level and sex composition) at local level. With regard to curricular provision, the secondary school has become much less academically oriented and the vocational school has moved from its position as provider of an early school-leaving programme. The direction of this change has not been random; both schools have been moving towards one another in terms of curricular and, as far as can be ascertained, extra-curricular provision. Both schools have taken steps to provide a mix of academic and practical subjects, as well as a scientific element.

The magnitude of the change becomes apparent when one compares the present position of the two schools with their former provision at the outset of the period. In the early 1960s the two schools could be clearly differentiated on several criteria - aims, curriculum, academic level, sex composition, career preparation and access to third level. In fact the two local schools approximated closely to the conventional descriptions of their respective sectors, which have tended to equate the secondary school with the 'academic' gymnasium, grammar school and lycee and the vocational school with the "non-academic" secondary modern school.[2] The historical position of the two sectors in terms of subject provision at the outset of the period is represented in Figure 1.

This representation no longer accurately reflects either the national or the local situation. The two schools have moved considerably from their traditional

FIGURE 1

HISTORICAL REPRESENTATION OF SECONDARY AND VOCATIONAL SECTORS IN TERMS OF SUBJECT PROVISION



position with regard to subject provision. There has been a definite convergence towards the centre of the academic-practical continuum. The traditional model is clearly obsolete and there is need to develop a more realistic and relevant descriptive model to replace it.

A more global way of characterising the nature and direction of change, other than subject provision, is by reference to a school's general policy position. Lacey has developed a typology in this regard which can be applied to the process of change.[3] He outlines three school policy positions. The first one he terms a "pressured" academic environment which he refers to as a situation where great stress is placed on academic achievement and examination success, with school resources being allocated in such a way as to further these goals. The second policy position, which he terms a compensatory environment, represents a situation where resources are allocated in such a way as to favour the 'relatively low achiever'. The third situation, termed a laissez-faire environment refers to a situation in which a number of policies may be followed (i.e. 'pressured' academic and compensatory) but they have no discernible effect on the way resources are allocated.

It is a useful typology and one which has some relevance to the process of change outlined. The "pressured" academic environment represents the former position of the secondary sector and what would appear to have been the former position of the local secondary school. The compensatory environment likewise seems to relate to both the former positions of the local vocational school and the wider vocational sector. As most of the evidence relates to the local schools' current position (i.e. in 1978) one has to be careful in inferring previous policy positions but what is clear is that neither of the two schools would now fit into either of the pure policy types. The secondary school has developed a strong compensatory element into its programme, which is at variance with the traditional image portrayed of such schools. Likewise, the vocational school has developed in contrast to the traditional picture, a more obvious academic thrust, even to the extent of sacrificing its special provision for slow learners. As both schools are still to some extent in the process of evolving their policy positions or sets of policy positions, it is difficult to definitively characterize their present policy positions. What one can say is that both schools appear to be developing more comprehensive learning environments, embracing aspects of both academic and compensatory plus a more general concern for pupil growth and development and that both schools have moved towards each other in terms of their overall provision.

Both the parents and the post-primary principals have clearly recognised the changing reality of provision at local level. While both principals used the term 'elite' when describing the general position of the secondary school in the past both were equally clear about the present position of the two schools, namely that they had moved nearer to one another and were now similar with regard to general policy, outlook and curricula. They were able to pinpoint differences - for example the unequal sex composition of their respective intakes, facilities, some aspects of subject provision (especially the presence of Engineering Workshop and Theory in the vocational school), but their replies emphasized similarities rather than differences. Likewise, the vast majority of the parents (84%) when questioned about differences between the two schools replied that they were the same/similar/fairly similar.[4] The latter is interesting because it shows how this perception of similarity has permeated to parents in a relatively short period of time.

How are we to account for the move by both schools from their traditional positions and their convergence towards one another in terms of subject provision, general outlook, co-education and academic level? In addition, how are we to account for the breakdown in co-operation between the 2 schools, despite the fact that they had become very similar to one another? There is no simple explanation but it is possible to separate some of the main strands and identify some of the important variables in the underlying process of change.

COMPETITION, CHOICE OF SCHOOL AND CHANGE : AN OUTLINE MODEL

The key to understanding the nature, direction and process of change lies in analysing the nature and consequences of the central government reforms of the 1960s and the new framework and relationships ushered in by these reforms. During the 1960s central government reshaped the education system and introduced new ground rules for the operation of the system. Financial restrictions on participation were removed, selection barriers were dismantled, freer access to the system was encouraged, restrictions on subject provision were effectively lifted and examination monopolies were removed in both the vocational and secondary sectors. Essentially the schools given an incentive to expand but in a situation where their market share was no longer protected. These reforms had two important effects. Firstly, schools were given the opportunity to compete directly with one another for pupils and secondly, parents were given an increased freedom of choice with respect to post-primary school. However, the precise impact of direct competition and the increased freedom of choice on the system varies from area to area, as both the nature of the competitive situation and the choice available are largely a function of historical factors and local circumstances.

Given the existence of competition and choice of school at local level, it is the main contention of this paper that these two factors, coupled with the relationship between a school's pupil numbers and staff/funding levels are central to an understanding of change at local level. On the one hand, free competition for pupils plus the relationship between intake and resources provides schools with an incentive to maximise intake in order to maximise resources. On the other hand, choice of school provides consumers with a sanction and a certain amount of leverage against schools which fail to be responsive to their demands. A decision by an individual (or more particularly by several individuals) not to send their child(ren) to a certain school will penalise that school, in that it will lose out on scarce resources. In order to avoid this a school must be responsive to the demands of parents/ pupils, or else be prepared to lose out to a competitor(s), always assuming one exists ready to meet the desires of parents/pupils.

The new framework, within which the post-primary system operates, although drawn up and monitored by central government, has brought into being a very real local dynamic to the operation of the post-primary system, which was not previously present in Irish education. Firstly, the framework gives schools a greater freedom than before to innovate, formulate and pursue their own educational policies, providing that they keep within the parameters of the framework. This is well illustrated in the case study, where all the decisions with respect to changes in subject provision, the development of other aspects of the educational environment, extra-curricular activity and inter-school relationships were made entirely by the respective schools. Moreover, some of the decisions were directly at variance with the spirit of central government policy, although permissible within the framework - for example, the break-up of the co-operative relationship between the two schools and prior to this, the rejection of amalgamation by the management of the local secondary school. These decisions show that within the framework there is a substantial place for both local initiative and policy making. However, it should be stated that central government policy and other national trends undoubtedly inform and influence local schools with respect to policy making falling within their legitimate sphere of influence, as schools do not operate in isolation from the wider society.

Secondly, and crucial to the argument of the paper, in addition to the freedom bestowed upon schools with respect to policy making, the framework also has the potential to impose constraints on a school's freedom to actually pursue its own independent policy. As already noted, the existence of competition, choice of school and the relationship between intake and staff/funding levels, whilst supplying certain incentives to action, also effectively introduce very real constraints, at least in theory, on the actions of schools. The exact form that the constraints will take will depend upon local circumstances, especially the competitive situation, the range of choice available to parents and the manner in which schools react to these factors.

It is possible to put forward a simple predictive 'economic' model, based on the foregoing analysis, which offers some insight into the underlying dynamics of change in the case study area and in other areas which have a similar competitive structure.[5] Essentially, the model, based on the demands of the two school competitive situation, the existence of choice and the relationship between intake and resources, would posit the following. Firstly, schools will attempt to maximise their intake in order to maximise their resources (referred to hereafter as the maximisation proposition). Secondly, in order to do this schools must be responsive to the demands of their consumers, otherwise they stand to lose out to a competitor(s) (referred to hereafter as the responsive proposition). This means that in terms of subject provision (and this can be extended to other aspects of school provision) schools will provide programmes which they feel will attract the most pupils. According to this model, schools are responsive to parents/pupils but not primarily for altruistic reasons, but because they stand to lose out on intake if they ignore the wishes of parents. The model assumes also that parents/pupils will choose a school which offers them a programme most in line with their goals. This implies, firstly, that they have goals and secondly, that they choose a school which they feel will provide them with the best opportunity of achieving these goals.

The remainder of the paper presents the evidence from the case study most pertinent to the model outlined above and assesses the appropriateness of the model in accounting for the nature and direction of change and, in particular, the degree to which the model helps to throw light on the convergence between the two schools and the failure of inter-school co-operation.

COMPETITION, CHOICE OF SCHOOL AND CHANGE : THE CASE STUDY EVIDENCE

The evidence comes from two sources : in-depth interviews with the two post-primary principals and a questionnaire administered to national school children who were about to commence their post-primary schooling.

(1) In-depth Principal Interviews

The principals were questioned extensively about their respective schools. The following summarises their views on the local competitive situation, intake/choice of school and the influence of parents/pupils on curriculum change.

A clear difference of emphasis emerged between the two principals in their perceptions of competition between the two schools. The principal of the vocational school openly acknowledged its existence, whereas the principal of the secondary school tended to play it down, while at the same time accepting that some people might see the two schools as being in competition. There was, however, an acceptance from both principals that some changes in the other school had directly affected them, although they both rejected having been influenced by any of the changes. They both acknowledged the existence of a certain amount of competition from outside their area, but neither of them felt unduly threatened by it. Both dismissed the idea that they were in competition with boarding schools, despite the fact that the secondary principal admitted losing one to two pupils each year to these schools.

With regard to intake/choice of school, there was agreement that this was a complex issue and probably influenced by "a multiplicity of factors", including "good results", "good discipline", a school's record with respect to "job placements after school", and "personal contact with the school at sometime".[6] Overall, however, they both felt that principals and schools can exert very little influence on the parent/child with regard to choice of school. The vocational principal, despite the above admission, adopted a vigorous approach in trying to attract and influence pupils. He readily professed that it was important to attract as many "interested pupils" as he could and he accepted that he tried to "sell" his school. The secondary principal, on the other hand, rejected the idea that she tried to "sell" her school or that she consciously tried to attract pupils.

The principals saw curriculum change as the result of the interaction of different factors, including their assessment of "what is best for the child", their need "to facilitate pupils", the need "to make the curriculum more relevant to the job market", "the availability of the means of providing" additional subjects and the need to "remain viable".[7] Neither principal made any reference to the role of parents in this process. When specifically asked, they both rejected the idea that their programme was in any way developed with a view to making it attractive to parents but they both qualified their replies by referring to the need to provide a programme suited to children and their needs. Further, both principals stated that they received virtually no feedback from parents on the curriculum. However, while the principals did not see any role for parents in curriculum change or in influencing subject provision, the view of change which emerged was far from being a school-centred one. There was clear recognition that, if a school is to remain viable, schools must be responsive to changes in the wider society and their own pupils. In relation to the latter, while both principals stressed the importance of their role in determining what is the most appropriate curriculum for their pupils, it is clear from their replies that an important part of this process involves "facilitating pupils" with regard to subject provision (i.e. providing subject(s) in order to satisfy the demands of their pupils). In this respect, both principals gave specific examples of where a subject or subjects were provided in order to meet the wishes of their pupils.

(2) Pupil Survey

All pupils in the catchment area about to enter post-primary school, and in attendance at national school on the day that the questionnaire was administered, were questioned about subject preferences, occupational aspirations and examination intention. In addition, an estimate of ability was obtained from national school principals with respect to each respondent. Of the 107 pupils interviewed, 51 (48%) were destined for the local secondary school, 25 (23%) were destined for the local vocational school and the remaining 31 (29%) were destined for boarding schools or other post-primary day schools outside the catchment area.

Table 1 outlines the subject preferences of the pupils by sex:

TABLE 1

SUBJECT PREFERENCES OF NEW ENTRANTS BY SEX[8]

Subject Preference	Female		Male		Combined	
	%	No.	%	No.	%	No.
Pupils Preferring:						
All academic subjects	31.91	15	18.33	11	24.30	26
An academic dominated mix of subjects	19.15	9	18.33	11	18.69	20
An even mix of subjects	19.15	9	18.33	11	18.69	20
A practical dominated mix of subjects	8.51	4	20.00	12	14.95	16
All practical subjects	-	-	5.00	3	2.80	3
Incomplete/no data	21.28	10	20.00	12	20.56	22
Total	100.0	47	99.99	60	99.99	107

The most striking feature of the combined distribution is the high percentage (52%) preferring some form of mixed programme (represented by Academic dominated mix, Even mix and Practical dominated mix). However, female entrants appear to favour a more academic orientation to their male counterparts. If the incomplete replies are excluded and subject preferences are related to type of school, it emerges that demand for a mixed programme is strongest among vocational school entrants (with 72% in favour), weakest among boarding school entrants (with 57% in favour), with secondary day school entrants occupying an intermediate position (with 63% in favour). In the case of entrants to the two local post-primary schools only, the pattern is similar with 73% of entrants to the vocational school and 67% of entrants to the secondary school favouring a mixed programme.

Clear trends emerge from the analysis of examination intentions, occupational aspirations and the ability distribution of the new entrants. Firstly, with respect to examination intentions, the vast majority of entrants (70%) desired to sit for the Leaving Certificate examination. Secondly, with regard to occupational aspirations, the majority of female entrants (70%) aspired to white collar occupations. While the position in the case of male entrants was not so clear, with 32% aspiring to skilled and 20% to white collar occupations, the two categories combined accounted for the majority (52%) of male aspirations. These same two categories accounted also for the aspirations of the majority of all new entrants to the two local post-primary schools, where 45% of secondary entrants aspired to white collar and 16% to skilled occupations and 25% of the vocational entrants aspired to white collar and 40% to skilled occupations. If incomplete replies are excluded, the trends noted with regard to examination intention and occupational aspiration would be even more pronounced. Finally, an examination of the ability distribution of new entrants in relation to type of school shows, in line with the findings of other studies,[9] that a disproportionate number of pupils rated as above average were destined for secondary school. However, the ability distribution of the intake into the two local schools shows, with 31% of the secondary entrants rated above average, 49% average and 20% below average in comparison with 12% above average, 64% average and 24% below average in the case of vocational entrants, that both have significant percentages in all three categories. Interestingly, they both have similar proportions rated below average, in contrast to boarding schools who have no entrants rated in this category.

COMPETITION, CHOICE OF SCHOOL AND CHANGE : ANALYSIS

The survey of principals throws some light on the competitive model. Firstly, there was clear recognition from the smaller of the two schools, the vocational school, of the existence of competition and the importance of attracting pupils. This difference probably reflects the relative size and strengths of the two schools. The vocational school, with its smaller numbers, needs to maintain and increase numbers if it is to survive. In addition, the recognition from both principals that changes in the other school had affected them is further indication of the reality of the local competitive situation. Given the proximity of the two schools and their dependence on the same pool of students for their intake, a major change in one school can have immediate repercussions for the other. However, this still falls short of recognising the role of competition and choice of school as catalysts for change.

Secondly, on the question of the school's responsiveness to parents/pupils, which is crucial to the model, while there was a rejection by the principals of the idea that curricular provision was influenced by parents, there was very definite recognition by the principals of the need to facilitate pupils with respect to subject provision. This recognition is very important and in accord with the model. Overall, however, the data fails to provide a comprehensive insight into the triangular relationship between parents, children and schools. Firstly, the data fail to reveal how principals/schools ascertain or take into account the preferences of their pupils. Secondly, there is a failure to establish the extent to which pupils' views on the curriculum actually reflect the views of their parents. Thirdly, in view of the latter, it is not possible to determine whether or not parents exercise an influence through their children. Finally, one cannot assess, on the basis of the data, whether or not the perceived lack of feedback on or role for parents with respect to curriculum/curriculum change merely reflects parental approval for subject provision and recent changes in this regard rather than parental impotence.

Turning to the pupil survey - an analysis of the preferences and aspirations of the new entrants allows one to ascertain the degree of general correspondence between the latter and existing provision. This is important because a key tenet of the competitive model is that schools in a competitive situation must be responsive to the needs of their consumers (actual and potential) - if they are to maximise their intake. Hence, one would expect, if the model has validity, to find a correspondence between provision and preference/aspiration, or at the very least movement in this direction. What one can say on the basis of the survey evidence and knowledge of existing provision is that such a general correspondence does exist, especially with regard to the main bulk (i.e. the middle ground) of the preference distribution and in line with majority aspirations on the other distributions, consistent with the responsive and maximisation propositions.

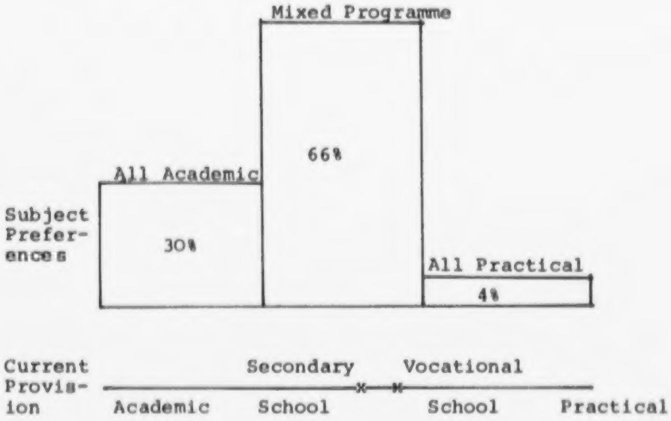
With regard to subject provision, while both schools provide a mixed programme, they have also taken steps to cater for the significant differences in male/female preferences, in particular the female desire for a more academic programme. Both schools provide their pupils with the opportunity to take the Leaving Certificate examination. Curriculum provision is also consistent with the career aspirations outlined. The majority female aspiration for white-collar employment is catered for by the academic orientation of existing female provision. In the case of boys the pattern of occupational aspiration is not so clear cut, but with the greatest single number falling into the skilled work category, the provision of a mixed rather than a practical programme seems best suited to meet this, given the changes in recruitment to the skilled employment sector.[10] Finally, with regard to the ability distribution, it can be argued that provision in both schools appears to have taken cognisance of this, as the two schools have taken steps to cater for the bulk of the distribution (i.e. by providing a mixed programme) and with both of them making provision in areas where they were previously weak (i.e. the secondary in the practical and remedial area and the vocational with respect to its provision of a more academic programme).

As the maximisation proposition is central to the model, one has to ask whether or not, given the subject preference distribution, the provision positions taken up by the two schools are consistent with this proposition. On the whole this seems to be the case - both schools have moved away from extreme provision positions, which would have been inconsistent with the present subject distribution, given the large middle ground (i.e. 50.23% of the total or 66% of the total of complete replies) wanting some form of mixed programme. Both schools have adopted provision positions which protect their traditional flank but allow them to compete for the large middle ground who want some form of mixed programme (see Figure 2). Failure to adopt such a position could have serious consequences for either school and would have been inconsistent with maximising intake.

The analysis of the pupil survey can be taken a step forward if one is prepared to make the assumption that the preferences and aspirations of this particular

FIGURE 2

SUBJECT PREFERENCE BY CURRENT PROVISION*



* Figure excludes all incomplete replies

group of entrants are similar to other recent groups of entrants. It is possible to put forward a reasonably convincing explanation of many of the changes noted in the case study in terms of the competitive model, based on this assumption of similarity (referred to hereafter as the similarity assumption). However, given the fact that the explanation relies on this crucial assumption, what follows is put forward as a means of illustrating the potential of the model rather than as direct evidence of the model's actual ability to explain the changes.

If one looks at subject preferences, bearing in mind the similarity assumption, it is possible to hypothesise that the move by both schools from their traditional provision to a mixed programme could be related to pupils' subject preferences. One can certainly argue that failure to alter provision, assuming that previous groups of new entrants had similar distributions of preferences, would have left both vulnerable of defections and moves by the other school to fill any vacuum. In particular, the similarity assumption could help explain some of the decisions made with regard to male and female subject provision. It could go a long way to explain why it became so urgent for the secondary school to provide Woodwork at great cost to the school, when the vocational school ceased providing it. Without Woodwork, assuming past groups of new entrants had similar subject preferences, the secondary school could have appeared unattractive to boys. In the case of girls, the decision of the secondary school to drop Shorthand and Typing in favour of remedial provision could make sense, if past demand for the subject was similar to current demand.[11] With respect to changes in provision for female students in the vocational school, the similarity assumption could go a long way to explain why the vocational school has pursued a more academic orientation than in the past. To neglect doing so might have made the school particularly unattractive to female students.

The sustained pressure exerted by the vocational school to get sanction for a senior cycle can be readily understood, if past groups of entrants had similar examination aspirations to the current entrants. With at least 70% of the students aspiring to the Leaving Certificate, a school not providing such an opportunity, as well as failing to meet the needs of parents and pupils, is in fact putting itself at a competitive disadvantage. Parents could send their child(ren) to the vocational school up to Intermediate Certificate and then transfer to the secondary. They would, however, be unlikely to do this unless there were some advantages to be gained. For many parents there would have ceased to be any advantage in the case of boys once the secondary school had started to provide woodwork, albeit with the co-operation of the vocational school. With regard to girls and their general preference for a more academic programme, there would appear to have been little advantage.

COMPETITION, CHOICE OF SCHOOL AND CHANGE : SUMMARY

In general, the evidence is in accord with the main argument of the paper and the competitive model but it is not conclusive without its limitations. Evidence consistent with the model includes the important role played by local management in the process of change; the awareness of the principals (especially the vocational principal) of their competitive relationship and the importance of intake; the acceptance by the principals of the need to facilitate pupils; the existence of a general correspondence between current provision and the various preference/aspiration distributions, in line with the responsive proposition and the adoption by both schools of competitive and provision positions consistent with the maximisation proposition, given the current subject preference distribution.

On the negative side - the principal survey failed to draw out fully either the nature of the competitive relationship or the relationship between parents/pupils and schools. Secondly, the existence of a general correspondence between the variables examined and the existing provision does not tell us anything about causation. This correspondence could have come about not as a result of schools being responsive to parents/pupils but as a result of different forces (e.g. parents/pupils and schools could have arrived at this position independently of one another rather than as a result of an interaction). Thirdly, explanations of recent changes in provision in the light of the various distributions could only be made by means of the similarity assumption. Finally, it is necessary to note, firstly, that the measure of subject preference employed was a limited one and secondly, that replies to questions on subject preference are in all probability influenced by a knowledge of existing provision and as such are not 'pure' measures of preference.

Overall, however, the model does provide a plausible explanation of the nature and direction of change. The two central tenets of the model, the maximisation and responsive propositions, help explain two of the key findings of the earlier part of the study, namely the convergence between the two schools in terms of provision and the breakdown in the co-operative relationship between the two schools. In relation to the former, given the general shape of the preference distribution and the strong demand for a mixed programme, the model would predict that schools in such a situation would be responsive to such demands. The convergence comes about quite simply because of the shape of the distribution and the fact that it is only by moving towards the centre of the distribution that the two schools can hope to maximise intake. Failure to respond would have left either school in a potentially vulnerable position.

The model could also help to account for the wider convergence noted, not just with regard to subject provision, namely, the convergence in terms of aims, sex composition, academic level, extra-curricular and religious provision. In a situation where schools are in direct competition for a limited number of students, it is highly likely that they will at least try to match their competitor(s) on as many dimensions as possible, in order to maximise intake and maintain their competitive position.

With regard to inter-school relationships, it follows from the model and what has been said about the reforms of the 1960s that the relationship between schools is competitive rather than co-operative. One can predict on the basis of the model that co-operation would be extremely difficult to sustain. Co-operation emerged in this particular area just after the secondary school went co-educational and the vocational school was facing direct competition on its doorstep for boys for the first time. The vocational school was in an extremely vulnerable position and it entered this relationship with the secondary under these circumstances, almost by way of insurance. Once, however, its own strategy for survival was in a position to be implemented (i.e. with its approval for a senior cycle) it ceased its policy of co-operation. The relationship is now essentially competitive rather than co-operative and given the framework and underlying dynamics of the situation, it would be difficult to see how co-operation could thrive.

CONCLUDING REMARKS

A model such as the one put forward, based as it is on a simplification of the real world, will not provide a complete explanation for change. However, such a model can provide insight into the process of change, avenues for further investigation and highlight salient features of our system. There is need to develop more fully the logic of the two school competitive situation, develop suitable models appropriate to more complex competitive situations and explore the implications of these models for central government policies like co-operation, amalgamation and the reduplication of resources.

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IDENTITY : A COVERT PEDAGOGY IN NORTHERN IRISH SCHOOLS

Dominic Murray

In the Northern Ireland context, there are (at least) two definitions which can be employed when dealing with the concept of identity. One is the more usual approach of studying the identity of individuals and groups. This approach tends to locate such individuals and groups within a web of influences such as history, tradition, culture, religion, etc. Hence we have a "nationalist" or a "British" identity which are functions of all of these influences. The second, which I have attempted to study and develop over the years is possibly a consequence of the first. It is the extent to which individuals and groups identify with the institutions and establishments of the country in which they live - in this case Northern Ireland.

The data informing this analysis has been collected in several ways. In the first place, 152 schools were studied by means of questionnaire in an attempt to gain a general profile of school practice in Northern Ireland. This general profile was used to facilitate a more interpretative approach within 19 schools situated in the north west of the province. This latter approach entailed frequent visits to the schools to enable observation and interview to be carried out. One of the conclusions of the research (see Darby et al., 1977) was that

> perhaps a real understanding of the dynamics of school life can only be provided by an intensive study of a single school.

This particular suggestion promoted a third mode of research, i.e. participant observation within 2 of the 19 schools. This entailed spending six months, full time, in each. I kept the same hours as teachers, took classes, supervision and games. Throughout this period I was engaged in observing and recording phenomena related to such aspects of school life as culture, character and ethos (see Murray, 1983).

The two schools therefore were not selected because they seemed unique in any way. They did rather represent a progressive focussing upon two of the schools studied in the Schools Apart research. They also served the same geographical area, had almost the same enrolment and had identical numbers of teachers.

I have come to the conclusion over the years that treatments of the concept of "identity" in Ireland, which have usually either been quarried from the misty slopes of the Boyne or illuminated by some Celtic twilight, have continually yielded little to aid comprehension of identity in the Northern Ireland context. Therefore, what I will be discussing initially is the extent to which individuals and groups within the schools relate to (or identify with) government and state departments in Northern Ireland. The disparity of response and observation in this context may be a major factor in explaining the curricular and cultural differences obtaining within the two schools, and indeed between the two segregated systems of education in general.

It would seem remiss, therefore, that so little research has been carried out in Northern Ireland into how the two major cultural and religious groups perceive their identity. Even less has been carried out within schools. Robinson (1971) researching with school children in Derry schools, claims that Protestant children see themselves as living in Northern Ireland with their capital Belfast and their history as part of British history. Catholic children on the other hand see themselves as living in Ireland with Dublin as their capital and a history of their own. If true, such findings are important in attempting to understand the civic behaviour of the two groups and as such are deserving of further, and deeper, consideration. Russell (1972), for example, has demonstrated that, arising out of this notion of identity, "Catholics in Northern Ireland are more likely to display negative attitudes towards the (Northern Ireland) government". For more recent findings see Darby et al. (1977); Farren, S. (1976); Murray, D. (1985); Dunn et al. (1984).

This specific conclusion of Russell's research relates very closely to my own definition of identity. I am convinced that more can be learned about it by a study of its contemporary ramifications than by blundering about in the mists and murk of previous centuries. This may seem gratuitous, but the stage has been reached in Northern Ireland where pragmatic (and contemporary) approaches are likely to be more productive than historic justification.

Since the concept of identity dealt with here is political in character, it should be seen in the context of prevailing structures in Northern Ireland. In fact, the implementation of the state was carried out almost exclusively by Protestants. The Catholic population, being convinced that the system would never last, took little part in proceedings. They were content to await its imminent and inevitable demise. The fact that the state proved more durable than Catholics had anticipated had two main implications. In the first place, Catholics were badly represented at policy-making levels and secondly, and perhaps consequently, more concern was afforded to Protestant aspirations and values in the formation of legislation and administration. The situation pertained as much in education as in other institutions.

While this power base was indisputably Protestant in nature, the existence of bias may have been exaggerated by Catholic perceptions. At the level of identity however whether gross bias existed in fact is less important than that it was seen to exist. It resulted in further avoidance by Catholics of existing political structures and reciprocal suspicion and exclusion of them by Protestants in government. Positive identity, on the one hand, and alienation and separatism, on the other hand, have become deep rooted over the years. This situation may well lend credence to the popular axiom (on the Catholics' side at least) that antipathy towards them which is mooted by Protestants is usually couched in religious terms whereas any aversion articulated by Catholics against Protestants most often tends to concentrate on their political aspirations.

This might be explained by the observation that overt political structures and institutions in Northern Ireland are equated by Catholics with the Protestant establishment and, as such, to be distrusted or at least treated with caution. After all, it is these contemporary structures and institutions which epitomise everything which was abhorrent to Catholics at the time of the origin of the state of Northern Ireland. These, then, present graphic evidence of (and perhaps "legitimate targets" for) discordant aspirations held by Protestants.

For Protestants, on the other hand, there is a much more limited range of institutions in Northern Ireland which can be claimed to represent the political aspirations of Catholics. There are, of course, Catholic churches, Catholic schools and, perhaps, the Gaelic

Athletic Association. All of these pre-date the state of Northern Ireland and as such are more likely to be seen by Protestants in an all-Ireland context. Obviously this has political implications. However, when Protestants look "south" and observe what is for them the appalling influence which the Catholic church exerts over populace and politicians alike, it is little wonder that political and cultural considerations are seen as having less importance than the perceived religious hegemony of the Catholic church. Thus, while reaction against Protestants from Catholics may most often be couched in political terms, Protestants may tend to posit religion as being the crucial and fundamental element of disparity.

Whatever the reasons for, or indeed the veracity of, this particular claim, it was considered essential in a cultural analysis of segregated schools in Northern Ireland to determine firstly, if such varying perceptions of church and state existed in schools and, secondly, to attempt to describe their practical implications for the day-to-day life and procedures of the schools.

During research in the two schools it became clear that in one school, Rathlin,* there existed a positive attitude towards the Department of Education and the local Education and Library Board. They seemed to be seen as a natural extension of the school and an integral part of a system to which Rathlin itself belonged. In this sense there was a common group identity with good communication and relationships existing within the group. A brief extract from Mr. Long's address at prize giving demonstrates this feeling:

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* Both schools and staff members have been given fictitious names.

> We take for granted the support of the Library Boards whose staff are so helpful when we ask for their expert advice.

The fact that the chairman of the local Education and Library Board was present in the audience may well have had some influence on Mr. Long's comments. His presence itself, however, demonstrates that he was considered to have an interest in and concern for the school. In fact, Mr. Long served on several consultative committees with the chairman and knew him well. Establishment, administration and practitioners seemed to share goals within a kind of extended educational family. This is not to suggest that there was some kind of "love affair" between Rathlin and institutional authority. However, the individuals within each met regularly and seemed to be striving towards a common goal.

The principal and staff in the other school, St. Jude's, appeared to view educational legislative bodies as "outsiders"; necessities to be tolerated. On one occasion Mr. Matthews entered the staffroom at break time brandishing a letter from the Department of Education. It was about some quite trivial matter but he used it to demonstrate the bureaucracy of the system. He went on at great length about the interference by the Department in the running of the school. The whole tenor of his remarks suggested anything but a mutual concern for the education of the pupils.

During an interview with another Catholic principal in the area I was informed that when a window was broken, he always insisted that the culprit pay for the damage. There were two reasons for this. In the first place it was good training for the pupils as they learned a sense of responsibility. Secondly: "It saves me having to get in touch with the Board and have them crawling all over the place". However, Mr. Long in Rathlin was obviously proud (and frequently discussed) his record of getting things done by the Board. According to the secretary in the school he was "never off the 'phone to one body or another".

These particular attitudes may well be symptomatic of a general trend. One senior Board official informed me that his office received ten times as many enquiries of a banal nature from state schools as from Catholic schools. While this may suggest that Catholic schools are less inclined to perceive official bodies as natural support systems for their schools, it can be taken a stage further. Not only may the Catholic school not perceive officials of administration as colleagues with a common goal, but they may be seen as "the opposition". Examples which suggest this possibility were recorded in three different Catholic primary schools in the area.

In one such school the principal informed me that he had applied to the Department to close the school for a day because of the death of a former teacher. The Department refused but the school quietly closed anyway: "What right had they to tell us what to do?" In another school, during the oil shortage, a general ban was placed on after-school activities. The principal still arranged a parent/teacher meeting on a particular night. He stated: "But I'll be damned if I'll tell the Board. My management committee have said it's O.K. and that is good enough for me". In St. Jude's, Mr. Matthews told me that the school always gave free school meals to all visitors (visiting teachers, teaching supervisors, etc.) although officially it was not supposed to do this. This again demonstrates an identification disparity between the two groups. In state schools any irregularities within the educational system are carried out against themselves since they perceive themselves as part of that system. Catholic schools labour under no such constraints and hence may find such "generosity" easier to practise.

In fact, Mr. Matthews told me that there were several pupils in his schools who did not qualify for free school dinners but they got them just the same. He contended that "you will not see this happening in Rathlin". He seemed to take pride in this kind of "fiddling" of the system when it was for the benefit of his pupils. His rationale seemed to be a good example of the general Catholic claim (Fulton, 1973) that the child is a child first and only secondly a citizen. There was no possibility of misreading the them (government bodies) and us (Catholic schools) imputation in his remarks and actions.

This kind of negative relationship was not confined to educational bodies alone. During discussions with St. Jude's staff upon another matter, I was talking about the possible conservatism of Roman Catholic schools. One member disagreed and claimed that his school was quite liberal. To prove his point he proclaimed the fact that they had actually allowed the police into the school to give a highway code demonstration. It was also observed that pupils in Rathlin paid much more frequent visits to community organisations such as the fire station, local government offices, the post office, police station, etc. When I mentioned this to the staff in St. Jude's they all agreed that this was probably correct but one claimed: "What would be the sense in our kids going there? They as Catholics will never get a job in any of them".

What is of interest here is that the Catholic teachers perceived such visits in vocational, rather than civic terms. If this perception is common to the Catholic sector as a whole, and other research evidence by the author suggests that it is, then it seems inevitable that the two groups will relate to, and identify with, the ordinary, day-to-day structures of their community in entirely different ways. In general terms, the Catholic teachers were not only curtailing the vocational aspirations of their pupils but also restricting their occupational possibilities. Again, the self-fulfilling prophecy might be operating. If pupils are advised, or given the impression, that they will not get a job in these establishments because of their religion then it is hardly surprising that they become under-represented in these occupational sites. This rationale, therefore, may well contribute both to perceived and real community differences and behaviour. The construction of behaviour based on a perception of division may in fact reify and perpetuate division in the community.

The "identity" aspect of segregated schooling may, therefore, give cause for concern. It is possible that certain Catholic schools may see their occupational task as preparing children for what they perceive as a discriminatory society. Whether such discrimination actually exists is not at issue here. The point is that teachers can validly be said to be perpetuating community division by directing their pupils to (or away from) certain sections of it.

I want to turn now to the other definition of identity which I mentioned at the outset - identity OF individuals and groups and to consider how this more historical and culturally linked phenomenon was manifested in schools. Prolonged participation and observation suggested that cultural considerations formed a significant part of the hidden (and sometimes formal) curriculum of the schools. In addition, identity seemed to exist as a covert pedagogy in both establishments with ritual and symbols being the visual aids which facilitated learning.

It must be said at once that symbols are very important in Northern Ireland. At a very basic level, they let you know "where you stand". Such "cues" are useful since at most social gatherings individuals will attempt to determine the religious affiliation, and hence political and cultural identity of the others. There is nothing remiss in this process. It is simply a means of avoiding possible embarrassment. The more visible the symbols displayed the more this identification process is facilitated.

It is also important to note that, for the individuals or groups displaying them, a symbol can construct a framework of meaning which goes far beyond its objective self. The memorial plaque in the Protestant school was a good example of this. On it was recorded all the names of past pupils who had fought in "The Great Wars". These men had fought in defence of the country of the present pupil population and were being honoured for doing so. In addition, the school displayed the "Union Jack" daily outside. The school was therefore quite naturally, demonstrating its identity with the state and thus, the establishment. The large papal flag draped in the assembly hall of the Catholic school is another case in point. This was a clear proclamation to pupils, teachers and visitors of the catholicity of the school - its raison d'etre.

These, and many other symbols displayed in both schools were clear and natural manifestations of the values and attitudes of individuals within each establishment. However, in a culturally divided country, the demonstration of symbols tends to be of less impact than how they are perceived and reacted to. Individuals, not being privy to the meaning structures of those for whom the symbols are constructed, must therefore interpret their display at a superficial level. By their very nature, symbols must be clearly visible. In Northern Ireland, however, visibility can be perceived as provocation. The flag flying outside the Protestant school which might be seen as a cultural symbol was in fact perceived by Catholic teachers very much in religious terms. They saw it as emphasising the religious composition of the school. It was not only Protestant but was exclusively so, presumably because no Catholic would concur with the displaying of such an emblem.

Protestant teachers, observing the religious symbols in the Catholic school, tended to relate these to "Catholic Ireland", which was in turn equated with a united Ireland. For them therefore the overt emphasis on Catholicism was in fact a political acclamation. This would seem to have important implications in a segregated society since, although the Roman Catholic hierarchy may defend their schools on religious grounds, many Protestants perceive them to be strongly political in nature.

This raises another crucial point. In the educational context it is not of concern that symbols are displayed singly by each type of school. It is rather their combined or cumulative effect which is significant. In this sense the segregated schools themselves are symbolic of the identity and aspirations of each cultural group. They exist not just as Catholic and state establishments but rather as separate institutions which parents perceive as being most likely to provide an appropriate ethos, or cultural milieu, for their children. Their existence therefore should be seen in terms of the fulfilment of a perceived need rather than a determinant of that need. It is this point more than any other which minimises the feasibility of their integration.

This cultural milieu allows children to learn not only their identity, but also the trappings of their identity. For example, Bishop Philbin (1975) in extolling the virtues of the interdependence of home, school and church in "the Christian formation of the young" requests that children should be asked to "wear school uniform to add to the visual effect". It is interesting to note, in this context, that all of the Catholic primary schools in the area in which my research was carried out wore a green uniform. Again this was seen by Protestant teachers in the area as a very strong political message. A subsequent observation in the researched Catholic school suggests that this perception may not be too far from the truth. In this school the football team wore a Glasgow Celtic strip for all home matches and all away matches against other Catholic schools but changed to less evocative attire only when playing away to Protestant schools. The point could not have been lost on the children. It certainly was not on visiting Protestant teachers.

On another occasion in the same school both Primary One classes were watching a video recording of a schools programme on television. As the schools programme finished the tape continued running to display a sports programme which presumably had been recorded some time earlier. The sports commenced with the playing of the British national anthem. As soon as it became clear what the music was, both teachers ran forward shrieking and laughing to switch the television off. This action was greeted with laughter and some applause from the pupils. It should be noted that many of these pupils were less than five years old. Such cues, delivered by individuals whom these children hold in high esteem, must have a major influence on how they will react when confronted with similar symbols in the future.

These formative experiences contrasted starkly with those observed in the Protestant school. There, for example, on Commonwealth Day, the whole of assembly was devoted to this topic. A letter from the Queen was read out to the pupils by the principal. He also delivered a brief eulogy about the Commonwealth. One of the ministers present gave a homily about the Queen and the good works she carried out for her subjects. The proceedings closed with a request from the principal that, to show their loyalty, everyone should sing a verse of "God save the Queen". Assembly broke up amid a festive atmosphere. All the pupils from P1 to P7 were united with teachers and clergy in a common identity within a Commonwealth family.

These few examples of rituals and symbols are cited in an attempt to give a flavour of the cultural ethos of both schools. They are neither specially selected nor untypical of the general day-to-day experiences within the establishments. In fact observation in the two schools, carried out over one full academic year, clearly demonstrated that each reflected and nourished differing cultural aspirations and identities. This is fine and to be expected. However, the trouble with segregated schools, in connection with identity conflict, may well be that no effort seemed to be made to make pupils aware of the sensitivities of any cultural group other than their own. Many Catholics, for example, find it incomprehensible that anyone should support the union with Britain. This is seen as an identification with a colonial power which has consistently demonstrated nothing but avarice and derision towards the people of Ireland. This may not actually be formally taught in Catholic schools (although in some cases it may well be) but little is done to inform the position. This is not to suggest that there should be any compromise of ideals. Justification of the Unionist position is not being recommended but simply an explanation of it.

This may be all the more important in view of the recent attention being paid to the alienation of

Catholics in Northern Ireland. The impression may be given that it is a new phenomenon. In fact it is far from new, though the events of this past 16 years have thrust it into prominence. One way of understanding it is to perceive it in terms of the identity and the disparate, institutional responses to the display of the cultural symbols of "each side". An attempt has already been made to show that such symbols are not only learned in schools but also that their meanings are learned to be cherished. However, one cultural group in the province has freedom to display the symbols which they hold dear while, at the same time, significant restrictions are imposed on the other group against doing the same thing. This can cause severe community friction and alienation. One should remember the riot engendered by the removal of the tricolour from Republican candidates' headquarters in 1964. Also it is important to be aware of the lengths to which the present establishment will go (sometimes with the most disastrous consequences) to ensure that no Republican symbols are displayed at the funerals of Republican activists.

In Northern Ireland, the cultures cherished both in schools and beyond are not only different; they are antipathetic. Any demonstration of one is seen as an assault on the other. Dr. Paisley (1985) epitomises this:

> I think that the tricolour in the majority of instances is flown as an act of defiance and in disrespect of the British sovereignty in this part of the island. Unionists see this as a defiance of the constitutional position.

Such a view is as legitimate as is the Catholic perception of Unionism. However, when it results in curtailing the freedom of expression of identity of another group, then the alienation of the group thus deprived is almost inevitable.

Obviously there is more to alienation than the relative freedom to display cultural symbols. However, symbols, as manifestations of identity, are very important in Northern Ireland and these are nurtured (if not planted) in the segregated schools. Since they are perceived differently by the Northern Ireland establishment as signs of stability on the one hand, or seeds of sedition on the other, it may well be that in this particular context there is a direct link between separate schooling and community conflict.

CONCLUSION

It would seem that in the segregated schools of Northern Ireland identity is caught rather than taught. It would also seem that comprehension loses out on both counts, since little effort is made to explain the values held by other cultural groups. This may be indicative of realism rather than isolationism. It may be dispiriting to encourage tolerance and understanding within schools if there is little displayed in society as a whole.

At the moment it can be said that the two main cultures in Northern Ireland are mutually exclusive because of the contrary political aspirations of both. However, it is also true that exclusiveness and intolerance are exacerbated by a mutual ignorance.

At the moment schools seem to be doing little to redress this ignorance.

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MICROTEACHING, CLASSROOM INTERACTION ANALYSIS AND TEACHER SELF-EVALUATION: DEVELOPMENTS IN THE HIGHER DIPLOMA IN EDUCATION COURSE AT MAYNOOTH

Máire Uí Chatháin

The effectiveness of pre-service teacher education courses in helping students to become competent classroom teachers has often been questioned. Personnel involved in the preparation of second level teachers are only too aware of the criticism levelled at Higher Diploma in Education courses. This criticism centres mainly on a perceived dichotomy between the theoretical aspects of the course (psychology, philosophy, sociology, curriculum studies, history of education), and the practical teaching in the school. Student teachers frequently perceive the Higher Diploma in Education course as academic and abstract, divorced from their real needs in the complex classroom situation. In the actual school context, worthwhile theoretical principles and concepts tend to be abandoned in favour of coping strategies, devices and methods acquired through "blind experimentation" in an arbitrary and "ad hoc" manner.

Space does not permit me to eleborate here on the reasons why conventional teacher education courses may be perceived as inadequate. I shall just draw on the comments of two educators, separated in time by more than a decade, to indicate some of the problems. Smith (1971) saw the then current practice in teacher education courses as being:

> ... to teach concepts from a text book by elaborating upon them in abstraction and illustrating them by verbal examples. 1

This comment may be equally applicable to much of teacher education programmes in the eighties. For example, Stones (1984) writes:

> Learning theories are held to be important for practical teaching but connections are rarely explicated in specific teaching situations... Student teachers learn about learning theory in the same way as they may learn about any other curriculum subject, as reception knowledge provided by transmission teaching. [2]

It becomes apparent that teacher education courses must provide teachers with more than an academic knowledge about teaching; it is not possible to acquire complex teaching skills by merely talking about them.

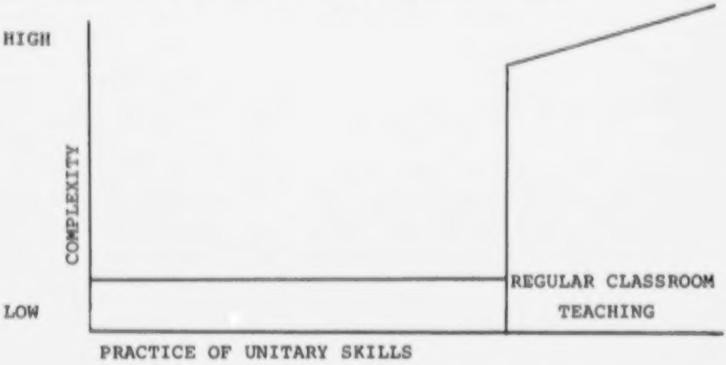
The development of microteaching was seen as a response to the growing dissatisfaction with traditional pre-service teacher education models with their emphasis on expository methods of teaching teachers. Microteaching, developed at Stanford University in 1963, is a laboratory technique in which the complexities of normal classroom teaching are reduced. Attention is focused in a related lecture on a specific teaching skill (for example, variation, reinforcement, questioning, clarity of explanation), which the teacher then practises in a scaled down teaching environment involving a small group of pupils (5-10) and a short lesson duration (5-10 minutes). The lesson is recorded on videotape which is later replayed for the student who observes and analyses it with the help of a supervisor. On the basis of this analysis and feedback, the student re-structures the lesson and re-teaches it to a different group of pupils. There is a considerable body of research evidence which attests to the effectiveness of microteaching in promoting the acquisition of some of the component skills of teaching.[3]

The advantages of microteaching over conventional teacher education methods with their emphasis on lectures and teaching practice, have been well documented. Some of the most frequently claimed advantages include:

1. The normal complexities of the regular school classroom are reduced - class size, scope of content and duration of lesson - and this affords the student teacher the opportunity to concentrate on the acquisition of professional skills of teaching through direct practice and experience. The student's primary responsibility is to learn how to teach.
2. Microteaching affords the opportunity for the student to analyse his own teaching and make his own evaluations of it.
3. Microteaching "allows for repeated practice until a skill is mastered in one context before it is necessary to transfer the use of that skill to other contexts". 4

The basic Stanford model of microteaching which was adopted by many microteaching programmes, is depicted in Figure 1.

Figure 1: The Stanford Model of Microteaching



Adapted from Hargie and Maidment 1979.

Figure 1 shows the concentration in the Stanford model on single clearly defined teaching skills which could be learned in isolation in the microteaching laboratory and later combined together as part of the total teaching act. Berliner (1969) echoed certain prevailing doubts:

> ... through concern for reducing the complexity of the classroom ... a situation yielding little transfer effect to the classroom may have been produced. [5]

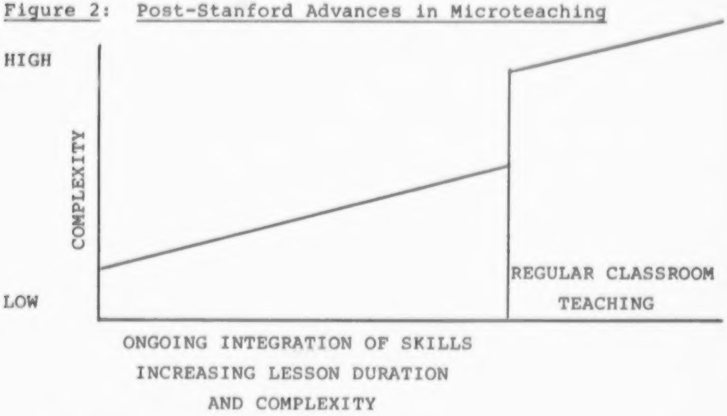
The ultimate criterion of the effectiveness of microteaching must surely be a perceptible change in teaching behaviour as evidenced in the real classroom situation. Since its inception a relationship had been assumed between microteaching and student teacher classroom performance. Relative to the volume of research conducted on microteaching and its components (modelling, methods of feedback and so on), little research had been undertaken on the transferability of skills acquired in a microteaching context to the regular classroom. The small number of studies showed that transfer of skills to the classroom did occur.[6] Later studies, however, suggested some "fall-off" between performance in the microteaching context and performance in the regular classroom,[7] while research in the U.S.A., Britain, Sweden and Holland (O.E.C.D., 1975), indicated that the level of transfer of microteaching skills to the classroom was more significant for in-service teachers than for student teachers.[8]

The problem for later microteaching programmes was seen to be the need to retain the safer and less demanding training context while still ensuring "sufficient stimulus similarity to permit maximum positive transfer to classroom teaching."[9] Overall task similarity is among the major empirical principles of transfer of learning from one context to another. Some post Stanford microteaching programmes in the late sixties and particularly in the

the seventies, therefore, endeavoured to approximate gradually to the real classroom by integration of skills at certain stages during the programme and by increasing lesson duration and pupil numbers. The fact also that later microteaching courses at Stanford itself eventually included continuous microclass teaching with lesson duration of around twenty minutes "may be interpreted as a conscious effort to reduce gradually the dissimilarity between the practice and goal situations during training."[10] It must be said, however, that many programmes adopted the initial Stanford approach with the emphasis on discrete skills.

The post-Stanford advances are schematised in Figure 2.

Figure 2: Post-Stanford Advances in Microteaching



The post-Stanford advances are seen by the writer as welcome and necessary developments. While the endeavours are directed towards achieving a gradual approximation to the classroom, yet the efforts have stopped short at the real classroom itself. Post-Stanford advances have failed to look inside the regular classroom in order to examine what impediments to the transfer of microteaching skills might exist there. Perrott (1977) from her research ranging over a ten year period on the use of microteaching techniques with both pre-service and in-service teachers concluded:

> ... the appropriate use of a skill is gained only in classroom interactions with pupils. It is only by constant experience with these interactions that the flexible use of a body of skills can be acquired. 11

Practice of teaching skills alone will not achieve the desired performance in the classroom because as Copeland (1975) postulates "exhibition of specific teaching skills is only one factor in good teaching."[12] The critical factor is that as Shulman (1975) points out:

> A teacher may possess a full range of relevant instructional skills, but if he is unable to diagnose situations in which a particular set of those skills is needed, the skills alone will be insufficient. 13

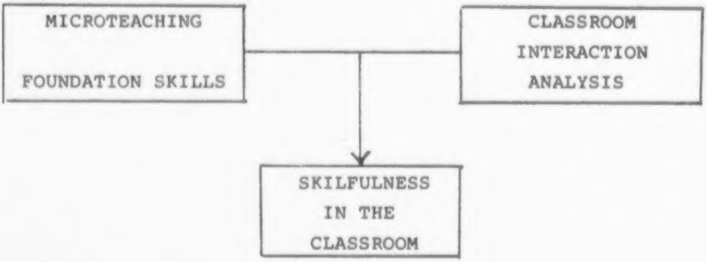
Notwithstanding the positive contribution of microteaching one is confronted by claims such as those of Applebee (1976), Lindop (1978), Spelman and St.John Brooks (1972)[14] that follow up lessons in school classrooms after a microteaching course seemed to reflect a preoccupation with the need to "use" the teaching skills rather than a concern with the appropriateness of the skill to the emerging instructional situation. My own experience with a Stanford type programme (the earlier model), collaborated these criticisms. The writer concluded that unless students are given an awareness of the interactive processes in the real classroom situation and an ability to cope with them, they will experience conflict between their teaching needs as encountered in the simplified microteaching context and their emerging needs in the more complex classroom situation.

The point has been reached in the discussion where it is postulated that a solely behavioural model is conceptually incomplete and we are now considering not so much teaching skills as *skilfulness*. Specific teaching skills may be distinguished from skilfulness. Skilfulness according to Turner (1975) includes:

> (a) determining what is to be done, (b) asking whether a particular skill achieves the desired effect and (c) timing the use of a specific skill to achieve the effect. [15]

Each class is comprised of a unique combination of personalities, constraints and opportunities. The sensitive teacher must be able to deploy his teaching skills in a variety of combinations tailoring teaching behaviour in specific contexts and situations to the specific needs of the moment.[16] In the shift from a product oriented approach (teaching skills) to a process orientation (skilfulness), students must be sensitised to the regular classroom situation - they require both training in and feedback from classroom interaction analysis. This is illustrated in the conceptual model of the Maynooth microteaching programme presented in Figure 3.

Figure 3: A Conceptual Model for the Maynooth Microteaching Programme



In the present model, the aim of the microteaching element is to provide students with a scaled down teaching encounter in a simplified context in order to acquire some professional teaching skills - microteaching is seen as the foundation course in teaching skills. The thrust of the classroom interaction analysis component is to sensitise students to the unique classroom situation in which they find themselves, to enable them to diagnose and interpret accurately the evolving learning situations and to respond to the perceived needs with the appropriate pedagogical skills to guide pupils' learning. (This latter part will be developed later.) Regardless of how good a microteaching programme is, how intensive, well structured or approximated to the classroom, the fact remains that there is still a substantial residual dissimilarity between the microteaching environment and the regular classroom. Pre-service teachers will encounter difficulty in the appropriate transfer of skills to the regular classroom, unless as shown in the model they are given a heightened awareness of the interactive variables in the real situation.

The model as schematised in Figure 3 is operationalised in practice and is presented in Figure 4. Firstly we will look at microteaching, the foundation course in practice; a discussion of the interaction analysis component will ensue.

By adaptation of the original Stanford model of microteaching (designed for training and supervision on an individual student basis), a programme in microteaching was developed to accommodate large student numbers with limited staff resources and within the time constraints of the one-year course. The programme has a single initiator (the writer), one part-time tutor (a supervisor of teaching practice) who assists in the analysis of lessons only, and a full-time technician.

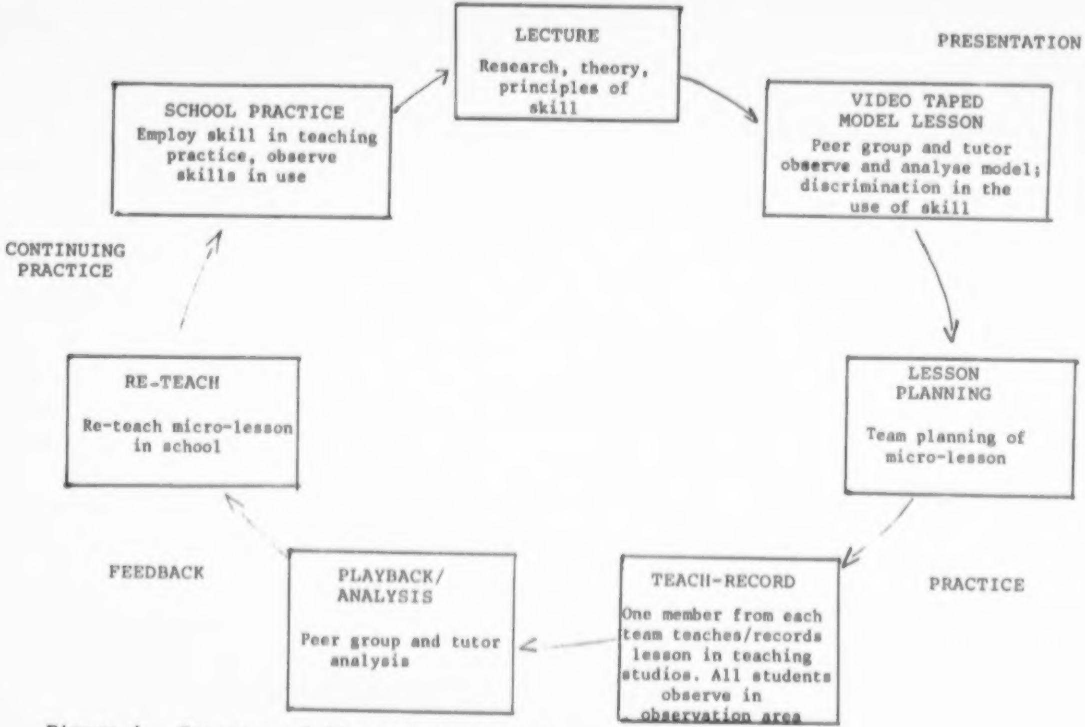

LECTURE
Research, theory, principles of skill
PRESENTATION
VIDEO TAPED MODEL LESSON
Peer group and tutor observe and analyse model; discrimination in the use of skill
LESSON PLANNING
Team planning of micro-lesson
TEACH-RECORD
One member from each team teaches/records lesson in teaching studios. All students observe in observation area
PRACTICE
PLAYBACK/ ANALYSIS
Peer group and tutor analysis
FEEDBACK
RE-TEACH
Re-teach micro-lesson in school
CONTINUING PRACTICE
SCHOOL PRACTICE
Employ skill in teaching practice, observe skills in use

Figure 4. Sequence of Microteaching Cycle

The design of the microteaching model is shown in Figure 4 under its four main interrelated phases - Presentation, Practice, Feedback and Continuing Practice.[17]

PRESENTATION PHASE

The presentation phase in the present programme consists of a two stage combination of a lecture on the skill and a videotaped model lesson. The lecture component provides a theoretical rationale for the skill to be acquired and guides the student to a critical review and understanding of the research support for the skill. The function of the videotaped model lesson is to demonstrate a teacher's use of the skill in the context of a complete lesson. The students are required to discriminate or isolate the essential aspects of the skill(s) by means of appraisal guides designed for this purpose. The appropriateness of the skill to the given context is also analysed.

PRACTICE PHASE

Team Planning/Preparation of Lessons

Following the Presentation Phase outlined, students are required to plan and prepare lessons (10-20 minutes duration) for 15-20 pupils of a specified grade level with the aim of focusing on the particular skill under development. The lessons are planned by students working in collaborative groups of 5-7 members functioning as teaching teams.

The team teaching approach to microteaching provides an open forum for discussion and exchange of ideas on teaching and enhances the effectiveness of lesson planning. The teaching reflects this team effort and the members identify strongly with the performance of their team. In addition, the experience of co-operatively working together in groups is felt to be of considerable importance as a training forum in interaction with other people. It is of vital importance to a successful outcome that all members of the team are perceived to be serious in their endeavours and contributions. To make for greater cohesion, motivation and team work co-ordination, the concept of team leader within each teaching team was introduced. The leader is chosen by the team members themselves after some initial experience of collectively working together.

To provide relevance and realism for the microlesson the regular class teachers of the pupils who comprise the microclasses, provide their schemes of work in all subject areas. This procedure enables students to select the topic for the microlessons (or unit of microlessons) and to relate the content of the microlessons to the regular school curriculum.

Teaching/Recording of Lessons

Having planned the lesson together, each teaching team selects one of its members to teach the lesson in the teaching studio. Each student teacher is recorded only once during the programme. Because of the dual constraints of time and student numbers a review and assessment of the role of the actual practice element of microteaching was undertaken before setting up the programme. It was concluded from the research literature that while some practice opportunities in microteaching are desirable, a rigorous practice cycle may not be essential for students' acquisition of skills, when discrimination training is being provided.[18] It was hypothesised that an effective preparation of students would be achieved by means of a cycle of microteaching, which would involve students in various roles throughout the cycle and where each phase was seen as being an essential component of the total cycle. The present programme was, therefore, designed in such a way as to ensure participation and involvement by each student teacher while experiencing various and alternating roles during each phase of the microteaching cycle - Presentation, Practice, Feedback, Continuing Practice.

Observation

In many microteaching programmes the actual recording of lessons proves to be a purely technical operation rather than a learning experience for students. In the present programme, student involvement during the actual teach-record sequence of microteaching is provided for by means of an observation area with viewing access to the teaching studio. A one-way glass system enables the students to observe the actual teaching live in the studio. Live observation is important in view of the essentially selective nature of videotape recordings. The students have a particular concern with their own team member's teaching performance of the lesson they have collectively prepared, with the additional interest in the quality of the teaching performance of members of the other teams. Interest and motivation is always at a premium during these sessions.

FEEDBACK PHASE

Peer-Group and Tutor Analysis

Playback and analysis of the recorded lessons are undertaken by the peer group and a supervisor. Peer analysis entails in effect six teaching teams comprised of six or seven members in each, involved in the discussion and analysis of each team member's videotaped lesson. It has been found that once the appropriate ethos has been achieved and from their grounding in pedagogy, teaching teams can isolate the strengths and weaknesses in the videotaped lessons and recommend alternative strategies with a minimum of guidance from the tutors. Team planning and evaluation of lessons inculcates an openness to criticism of teaching by enabling students to objectify their teaching and not to feel personally threatened by a critical analysis of it. The team teaching approach adopted might perhaps be more aptly termed "team learning".

The re-teach of the microlesson following analysis is not undertaken in the formal sense in the programme. This decision was based on the fact that the real value of the re-teach for all students regardless of the quality of the initial microlesson is in question in the research.[19] In addition, the constraints of time and large student numbers were also important factors in the decision. While formal re-teach of lessons is not incorporated into the microteaching course students are encouraged to re-teach the microlesson in the regular classroom, where appropriate, but this aspect of the programme is flexible and left to the students' discretion. (Microteaching is conducted concurrently with teaching practice).

CONTINUING PRACTICE

Students employ the skills in their teaching practice in the school. Where observation of experienced teachers takes place, students analyse the use or lack of use of the specific skills.

Having examined the sequence of the microteaching cycle in Maynooth, it is pertinent to examine how the operational model of microteaching is organised to accommodate large student numbers. A schema of the organisation is presented in Figure 5.

It can be seen from Figure 5 that the student body as a whole meet once at the beginning of the course for an orientation lecture providing the theoretical structure and rationale for microteaching. Following the orientation lecture the total group (N=160) is divided into two groups of 80 (X and Y). A group of 80 (X or Y) meet for the Presentation Phase (lecture, videotaped model) which we have just discussed. For each grouping (X and Y) microteaching sessions are conducted on alternate days and while the writer is engaged with one group (X or Y), the other group is involved in planning/preparation of lessons with their respective teams. Each of the groups of 80 is further subdivided into tutorial groups of 40 (X_1, X_2 / Y_1, Y_2) which in turn are comprised of six teaching teams for recording observation and analysis sessions.

The total involvement of the student teachers in all sequences of the microteaching cycle has been found to constitute a very thorough learning situation for the neophyte teacher. All teachers are given an opportunity to experiment with and experience different roles ensuring that the more reticent students are encouraged in participation.

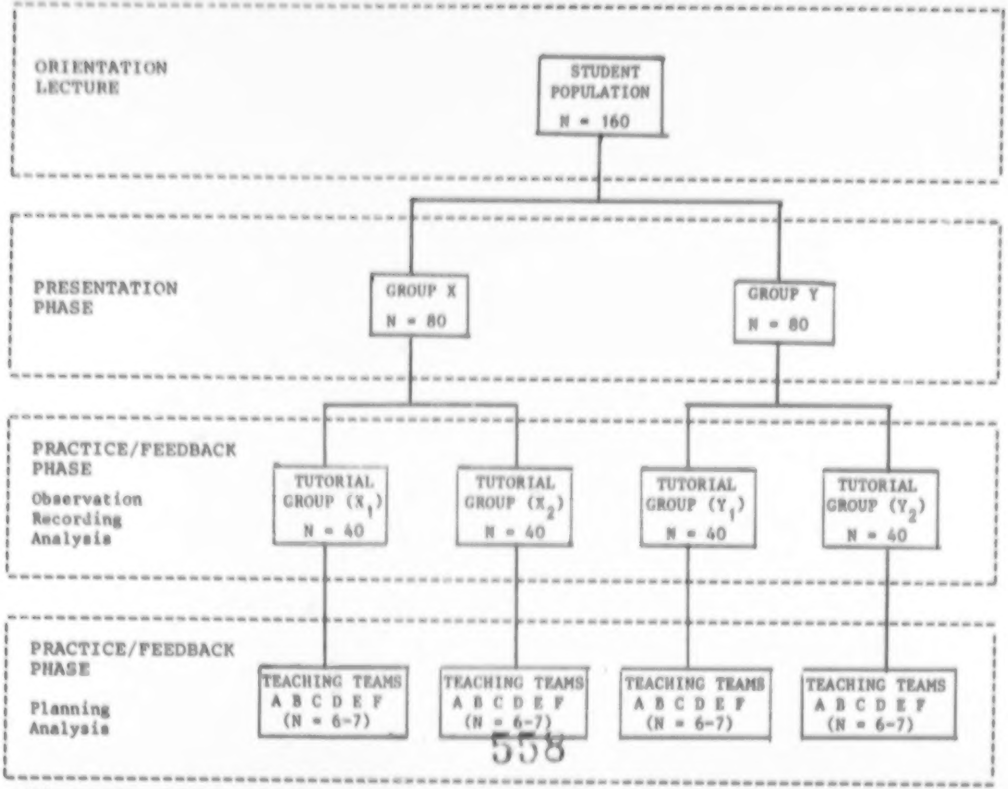

ORIENTATION LECTURE
STUDENT POPULATION N = 160
PRESENTATION PHASE
GROUP X N = 80
GROUP Y N = 80
PRACTICE/FEEDBACK PHASE
Observation
Recording
Analysis
TUTORIAL GROUP (X_1) N = 40
TUTORIAL GROUP (X_2) N = 40
TUTORIAL GROUP (Y_1) N = 40
TUTORIAL GROUP (Y_2) N = 40
PRACTICE/FEEDBACK PHASE
Planning
Analysis
TEACHING TEAMS A B C D E F (N = 6-7)
TEACHING TEAMS A B C D E F (N = 6-7)
TEACHING TEAMS A B C D E F (N = 6-7)
TEACHING TEAMS A B C D E F (N = 6-7)

Figure 5. Schema of the Design and Organisation of the Operational Microteaching Programme

CLASSROOM INTERACTION ANALYSIS

It was postulated in Figure 3 that students must be sensitised to the interactive variables in the real classroom situation if they are to appropriately transfer the teaching skills acquired in a laboratory context and integrate them into a more complex goal oriented teaching activity in the classroom. For this purpose Flanders' Interaction Analysis Category System (FIAC), is used as a facilitator in increasing awareness of the classroom context. The Flanders' system employs ten descriptive categories by which the varbal interaction between teacher and pupils in the classroom can be characterized.[20] Nothwithstanding certain perceived limitations of the system, the research had shown that teachers trained in this system had been found to be more aware of the effects of their teaching and better able to control and modify teaching strategies than teachers trained in traditional courses. The model developed at Maynooth incorporates not merely the study of the FIAC system by student teachers but also, the application of the analysis to their own teaching in the regular classroom, in order to provide systematic feedback. The important attributes of FIAC highlighted in the Maynooth programme are presented in Figure 6.

The methodology of the present FIAC programme is such that the onus rests with the students to analyse their teaching, plan changes, set their own goals for development and evaluate their progress towards the achievement of the stated goals by further lesson recordings and analysis. This evaluation becomes a tool for action research by the students in their own classrooms. The action research element is schematised in Figure 7.

Figure 6. Important Attributes of FIAC highlighted in the Maynooth Programme

FIAC is used to provide:

- Training in and feedback from classroom interaction analysis;
- A methodology for self-directed inquiry by students into their own teaching;
- Systematic feedback on teaching;
- Self-confrontation with their teaching;
- Medium for training in ACTION RESEARCH in the classroom;
- An instrument to effect appropriate use of micro-teaching skills;
- Constant reconstruction of experiences and reflective thinking;
- Framework for ongoing professional development.

Figure 7. Training in Action Research in the Classroom (Term 2)

Students record classroom lesson on audiotape (pre-FIAC course lesson)

Training in FIAC system:
- Encoding and decoding data on teaching
- Analysis of Interaction Matrix

Feedback from FIAC system:
- Students analyse their first recorded lesson which has been transposed into an interaction matrix
- Students set their own goals for change
- Conscious striving to achieve planned goals in the classroom over a set period of time drawing on microteaching skills to devise teaching strategies to achieve them.

Record second lesson

Analysis of second lesson

Outcomes:
- Evaluation of planned changes in teaching behaviour
- Did planned changes produce desired pupil behaviour?
- Congruence of teacher instructional intentions and actions in the classroom

Set further goals for development

The writer holds the position that it is in the application of FIAC to their own teaching and the analysis of the attendant feedback that students encounter incongruities between their own idealised images of their classroom behaviour and the reality as revealed by the feedback. This is a unique personal confrontation with the discrepancy between teacher intention and action in the classroom. A state of "cognitive dissonance" may thereby be induced providing a strong motivation to act in order to resolve the conflict. To this end causative factors must first be identified before changes in the desired direction in students' teaching behaviour can be properly effected. In the process of seeking solutions for change in teaching behaviour, students will have recourse to the domain of theory and pedagogy. This leads to a re-evaluation of the function and effectiveness of the teaching skills acquired in the microteaching context, to meet appropriately the needs of the situation. The outcome of this endeavour is that the transfer of microteaching skills to the regular classroom is facilitated.

FIAC is presented as a technique which will enable student teachers to conduct a systematic self-directed inquiry into their own teaching, providing them with the information needed to improve their role as facilitators of learning in the classroom. The student teachers in the programme are seen as innovative researchers systematically analysing their own teaching, consistently interpreting and re-evaluating what they are doing. This is escapsulated in an evaluatory comment on the course by one student:

> Flanders' methodology (as used in the course), will not lead to sombre conclusions that one cannot match the "master", nor will it provide an excuse for mediocrity leading to the conclusion that one is an "above average" teacher; rather it impels one to constantly strive to improve and develop one's own teaching.

The work entails constant re-construction of experiences and reflective thinking. Students see themselves as important agents in their own professional development.

An evaluation of the integrated model of microteaching and interaction analysis, over a five year period,[21] found that students who participated in this specialised component of the Higher Diploma in Education course at Maynooth, achieved very significantly higher teaching practice grades than students who pursued the earlier traditional style Higher Diploma in Education. Overall it was found that a substantial upward lift of students from the lower teaching grades into the honours and higher honours grades occurred, when compared to the distributions on the traditional Higher Diploma in Education course.

It is the articulated focus of the present professional programme to promote a more self-directed pattern of learning in teachers. It does so in the belief that the ensuing teaching behaviour will engender an actively inquiring independent style of learning in pupils. When teachers are made agents for their own development, and experience an independent inquiry process as the mode of their pedagogical training rather than being subjected to expository or transmission methods of teaching, they are more likely to adopt such a methodology in their own interactions with pupils. Such a training at the pre-service level is highly important in the context of the recently proposed changes in the curriculum at second level.

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MODELS OF TEACHING:
TOWARD THE CONSTRUCTION OF A META-MODEL

Frank M. Flanagan

Introduction

A multiplicity of models of teaching poses many difficulties for the teacher, the student-teacher and the teacher educator. From the celebrated episode in the Meno through the analysis-generated models of the Anglo-American tradition to the more recent offerings of the "new sociology" we are faced with a bewildering array of accounts of teaching some of which purport to give a purely descriptive account, others to present an exemplar of what teaching ought to be. How are we to make sense of the alternative, often conflicting, accounts which are sometimes proposed as alternative paradigms? On what basis, and according to what criteria, will we judge between contending descriptive models or between contending normative models, whether such models are empirical or conceptual? How will we judge, even more fundamentally, whether alternative accounts actually are comparable? Can we compare, for instance, a characterization of teaching as intentional, goal-directed and indicatively expressive[1] with an account of teaching as the dialogical presentation of a selection of the effective world?[2] Can we decide whether the accounts are in principle reconcilable, if so on what grounds? Are they related logically or epistemologically or are they, quite simply, mutually exclusive? Does it make any sense at all to ask which of them is correct or true?

As the beginning of an answer to such questions the present paper will attempt two things. Firstly, it will attempt to clarify the status of models of teaching. It will argue that such models are necessarily selective idealisations of experience or of possible experience; that they are "selective" insofar as they embody a theory of reality or of social reality; that they are attempts to programme our perception of reality and our responses to it in specific ways. Secondly, it will sketch out a hierarchy of related levels, or categories, of comparability. All models of teaching do not operate at the same level of experience, significance or understanding: they do not, despite appearances to the contrary, address themselves to the same problem or issue. The central question, "What is teaching?", is neither clear nor unambiguous. There is no single, non-controversial answer, even in principle, either at the basic level of analysis (where the question as to whose usage is being taken as typical is begged) or at the elaborated level of ideology (where the given socio-cultural context may be crucial and definitive). Just as we need a meta-language to discuss and elaborate the nature and function of language we need to construct a meta-model, or a grammar of models, in order to define, discuss and elaborate an ontology of teaching. The present proposed hierarchy consists of four successive levels, namely, transactional, relational, occupational and ideological. Individually these levels provide categories for the identification and comparison of similar variants. Jointly their principal function is to provide a structure by means of which proposed models can be ordered, compared and evaluated in terms of their completeness, consistency and relevance.

Models of Reality

We utilise many different models of teaching for many different purposes from "teaching" machines to micro-teaching situations to the abstract conceptual models of teaching which we invoke when we speak to one another and to our students about teaching. Yet all such models are selectively and systematically unfaithful to the reality which they purport to represent. In constructing a model, whether it be material or conceptual, we select, omit, enhance, repress and generally distort features of reality in accordance with theoretical judgements as to what is essential or important. We cope with an immeasurably complex reality by using models to reduce it to manageable proportions. We simulate reality, or parts of it, by constructing models which are, we hope, similar in some important respects to the reality but which are simpler and more manipulable. So what we "carry about in our heads" is a representation of reality which will facilitate understanding, control and direction of our day-to-day experience but only to a limited extent. It is a representation which emphasises certain features and omits others. The models we construct impose coherence and significance on a selection of the discrete phenomena which constitute reality. But the decisions regarding what elements of the phenomenal world will be included in, or excluded from, our models are not determined by the models themselves. They are determined by perceptions, judgements and commitments which are logically and epistemically prior to our construction of the models. In short such decisions are determined by our theory of reality; the models are not theories, they embody theories. Nor are they simply verbal descriptions: the verbal descriptions are descriptions of the models, not the models themselves.

Initially our models are not constructed by ourselves as a result of practice or observation in teaching or in any other domain. Part of the process of initiation into any pursuit - whether it be a game, a study or an occupation - is the reception and internalisation of prevailing models and of the values, principles and theories which they embody. The student-teacher, for instance, is already in possession of unarticulated models of teaching "picked up" during the course of schooling. He/she proceeds in "training" by utilising models of teaching which are imposed or prescribed by the preparatory institution. It is important to know how such prescribed models are transmitted and internalised. It is equally important to know to what extent such models are articulated (as distinct from being embedded in methodological prescriptions or organisational routines). It is important to ensure that when articulated they are perceived as models rather than as invocations of the reality itself.

A model is not an arbitrary representation: it embodies theoretical judgements made in accordance with a convention of construction. It follows that the model must be "read" in accordance with a corresponding convention of interpretation. The transmission of models without an appropriate interpretative convention leads to, or reinforces, ritualism and mystification. The models are acknowledged not for their intrinsic truth, validity or utility, but because of gross contingencies such as the authoritativeness of the source or their location in the overall context of tradition, convention and perceived power within the transmitting institution. Correspondences between the model and the object-reality will be negative as well as positive. In using, transmitting or evaluating, the model we must be mindful of the appropriate interpretative convention so that both positive and negative correspondences can be identified.

Conceptual models then should be thought of as speculative constructs the utility of which varies according to circumstances of construction and application: they may be appropriate and useful or not. "Use of a particular model", according to Max Black, "may amount to nothing more than a strained and artificial description of a domain sufficiently known otherwise. But it may also help us to notice what otherwise would be overlooked, to shift the relative emphasis attached to details - in short, to see new connections."[3] The appeal of the model is that it is simpler and better organised than the corresponding object-reality. Consequently it is relatively unproblematic in comparison with the object-reality. Its relation to this object-reality is isomorphic: both share a structure or pattern of relationships. One test of the validity of a model is, in Black's words, "the extent of its isomorphism with its intended application".[4]

None of this indicates the ontological status of models of teaching: whether they are "existential statements", i.e. constructs corresponding to something which is "really" out there, or whether they are simply "heuristic fictions", i.e. convenient, but essentially arbitrary, devices for directing our attention to salient features of what may be out there but which do not necessarily correspond in any detail to the reality.[5] It should become clear that the present view favours the former interpretation; that models of teaching can mirror, and can be known to mirror, the ontological structure of reality itself. It is only because they are deemed to be existential constructs that their interrelations are considered invaluable and irreplaceable as indicators of the reality of teaching.

Transactional Models of Teaching

Of all the models we use to present the idea of teaching to others or to represent it to ourselves the most simplistic and primitive in epistemic terms, are the reductionist models of the analytical school. The procedure followed is usually to subject ordinary language or usage (what is "ordinary" about it is another matter) to a kind of analytical torture in the hope that it will yield up some essentialist, or at least conceptual, secret about teaching. In this approach, as Langford observes "The question 'What is teaching?' is interpreted primarily as a question about isolated transations...",[6] and the results, while they may be of some interest to the researcher are of little utility to the practitioner. Hirst's approach,in his "What is teaching?", is typical. The purpose is nothing so robust as an explanatory or descriptive model of teaching but the more modest, even anaemic, purpose of "being clear about what teaching is".[7] There is the associated claim, implied if not expressly stated, that the analysis is detached, objective, "scientific". The pursuit, according to Scheffler, is of "critical precision rather than doctrine".[8] I will refer to such models as "transactional models".

Hirst's analysis is based, in the first place, on a distinction between two senses of teaching. This distinction is a pre-requisite, not a consequence, of the analysis itself. Hirst decides that we must "surely distinguish two obviously different senses in which we talk about teaching": a general sense, "teaching as an enterprise" and a more restricted sense, teaching as a transaction.[9] So Hirst begins his attempt to construct a model of teaching which will, he hopes, enable us to distinguish "teaching from other activities" by presuming the existence of the distinction between teaching in one sense and teaching in another. This helps to identify the tendentious thrust of Hirst's argument. The distinction in question flows, not from the model itself or from the convention of construction but from the philosophical pre-suppositions which under-pin the method of construction itself. This should forewarn us against accepting the model being presented, or any other, as "objective", in the sense of being free of the passion of personal advocacy.

A second feature of Hirst's analysis - and a characteristic of this kind of analysis in general - is the identification of a criterion which the method itself is incapable of explaining. This is the concept of intention, the rock upon which so many analyses of this kind founder. (McClellan's analysis, for instance, cannot go beyond intention because it cannot satisfactorily account for intention without invoking higher order models.).[10] The analysis of usage identifies the centrality of intention as a necessary condition of teaching but is incapable of providing a satisfactory account of it. Yet the concept is crucial for the kinds of task which will be required of the model: enabling us to distinguish, for example, between teaching which is deemed educationally respectable and teaching (such as indoctrination) which is not.

Scheffler meets a similar difficulty. His programme involves establishing to what it is, in reality, that the word "teaching" "typically refers".[11] The use of the word "typically" indicates the search for a model - in the sense of a generalised and idealised construction corresponding in important ways to an underlying reality - rather than the identification of a specific instance no matter how representative. The resulting model may be described as follows: an activity directed towards a goal, the attainment of which normally involves attention and effort and which provides a relevant definition of success. Such a model does not satisfy because, although it can undoubtedly be constructed on the basis of someone's typical usage, it is of little programmatic significance or worth, i.e., it leads us nowhere. Scheffler must go beyond his self-defined remit of the application and reference of a word and in doing so unintentionally expose the inadequacies of the method and of the model. In the first place he establishes the requirement that the learning which comes about as a result of teaching must be accomplished in a certain manner: "... the notion 'teaching' suggests a crucial distinction with regard to the manner in which learning may proceed".[12] It involves the submission of reasons to the evaluation and criticism of the student.[13] But such a stipulation does not follow from an analysis of usage. Frequently the term "to teach" has been used, and legitimately used, to denote procedures which do not acknowledge "the student's intellectual integrity and capacity for independent judgement".[14] This stipulation is a declaration of what will count as standard usage, not a description of it. It illustrates the normative rather than the descriptive function of the word "standard". It is a prescription which comes, not from usage analysis, but from prior decisions as to how representative instances of usage will be selected. It invokes a model, or type of model, which includes as a constitutive part a definition of what will be considered as appropriate learner/teacher relationships.

Scheffler goes further. He sets a social context for the enterprise of teaching. He does not talk about a transaction only, or even about a transaction conducted on the basis of what is clearly a normatively defined relationship. He very clearly indicates an occupational context for the transaction as well. In considering the relationship between scientific enquiry and teaching he writes "Scientific enquiry ... may yield statements indicating what teaching procedures are most effective.."[15] The implication here of a criterion of judgement and excellence (or even of appropriateness) comes from beyond the simple linguistic analysis. Scheffler presumes an occupational context, he does not establish it. He identifies characteristics of teaching as an occupation. As before there is a strong element of advocacy in what is being presented as a cool and detached analysis. Thus in speaking about what he calls "the increasing professionalisation" of teaching he endorses a particular model of teaching at an occupational level and advocates the development of particular interests and commitments on the part of teachers as an occupational group.[16] Valid as such advocacy might be it does not belong to or follow from the kind of analysis in which Scheffler is engaged. The analysis of the word "teaching" and its usage, the convention whereby such models are constructed, does not warrant the invocation of this higher-order occupational model. There is here, as in Hirst's analysis, a manifest conflict between what the writer wishes to say about teaching and the limits which the chosen method imposes on what can, legitimately, be said about teaching.

Questions, then, about intention, about appropriate pupil/teacher relationships, about the context of occupational practice (and about the identification and justification of the goal of teaching) cannot be pursued at the level of linguistic analysis. My argument so far is not that this kind of model is mistaken (although clearly some variants may be) but that it is limited: it can raise important questions but many of the most important questions cannot be answered within the terms of reference of this convention. We must acknowledge the need for other, richer models which will flesh out the abstractions which result from this kind of analysis.

Relational Models of Training

The second-level models of teaching I call "relational" models. These are models which are characterised by a definition of the personal relationship (hence "relational") between the teacher and the learner. Such models take for granted many of the substantive points made at the first level (such that teaching is conceptually related to learning, is transactional, goal-oriented and so on) but go beyond them.

Perhaps the best known variant of this model is the "Socratic" model of teaching. In fact there are two quite distinct variants which, though mutually incompatible, are frequently referred to as the "Socratic" model. The Socratic dialogues of Plato can be divided more or less neatly into two groups.[17] First of all there are the dialogues or parts of dialogues in which the fictional Socrates appears to know in advance the answer to the questions raised. (The episode with the slave in *Meno* may be the paradigm of this group.) In these dialogues, consequently, the methodological procedure merely apes open discussion or exploration. In such cases the teacher/learner relationship is teacher dominated and controlled and the learner is a more or less passive recipient who may or may not share in an illusion of actually discovering something worthwhile. By contrast we have dialogues in which clearly the fictional Socrates does not know the answers in advance.[18] The discussion with Meno himself in pursuit of the question "Can virtue be taught?" is a good example of a dialogue of this kind. Here we have an exploration shared between equals, conducted on rational grounds in pursuit of a goal which is of mutual interest. The learner/teacher relationship is constitutive of all models of this level. It may be a relationship based on the domination and manipulation of truth and reciprocal respect.

The claim that teaching is an art, associated with the philosophy of Martin Heidegger[19] and Jacques Maritain,[20] locates teaching at this level also. Gotz's elaboration of Heidegger's views, for instance, makes it clear that the unconcealment of truth required by teaching involves a kind of symbiotic relationship between teacher and learner. In this relationship the creativity of the former is preserved only in the knowing of the latter. It is only when these complementary conditions for a mutual engagement are present that we can talk of teaching. This relationship of creativity and preservation is constitutive of the pedagogic relation. In Heidegger's words "What teaching calls for is this: to let learn". Gotz adds: "To be a teacher, then, is not merely to learn to know when and where and how unconcealment is to take place, to learn to listen to the call of Being, to learn to answer, correspond and converse; to be a teacher means above all to learn to let others learn".[21] This relational model also, incidentally, illuminates another characteristic of models at this level: the notion of being a teacher. We are no longer concerned, as at level 1, with the abstract algebra of analysis but with the experiential reality of teaching.

Perhaps the best known model at this level is that advocated by Martin Buber.[22] Buber's model is based centrally on a relationship rather than on a transaction or a transactional context. The teacher/learner engagement is an I/Thou relationship in which the two parties meet dialogically. They do not, of course, meet as equals in every respect. The teacher and the pupil are mutually present to one another but the exchange between them is "one-sided".[23] The teacher carries to the pupil an assurance of trust, of meaning and of love. The pupil comes to "trust the world because there is such [a person as a teacher], this is the innermost work of educational relationship".[24] Teaching, "the relation in education", is for Buber the dialogical presentation of a selection of the effective world. Even the models of teaching which Buber rejects, that based on "Eros" and that based on the "will to power", are similarly defined in terms of their constitutive personal relations.[25] It should be emphasised, though, that Buber's model, and other models at this level, are not intended to be simply descriptive. His model is unashamedly normative: this, he is saying, is how teaching ought to be at its best. Even the contrary variants are not simply described, they are expressly rejected.

Teaching does not always conform to a model such as Buber's. Often, most often perhaps, the teacher/learner relationship is based on domination, intolerance, manipulation and exploitation. It is no less teaching for all that. No honest purpose can be served by withholding the term "teaching" from situations to which, historically and conventionally, it applies.

At this point we need to remind ourselves once again of the essential incompleteness of models of any kind: a model is a selective idealisation not a complete account. We have looked at models based on the transactional nature of teaching and on teacher/learner relations. Having established through the analysis the trivial fact that a relation is involved and having looked at some of the forms which this relationship may take it becomes clear that it is not, of course, the only relation involved. One of the major inadequacies of the analysis-based models is that they ignore completely the social context in which teaching (the "transaction") is conducted; and relational models concentrate exclusively on the single relationship, albeit a constitutive one, between teacher and learner. But teachers as teachers have relationships not only with pupils but with parents, school authorities, educational authorities and others as well as, crucially, with one another. This occupational dimension defines the context of the third level of models of teaching.

Occupational Models of Teaching

The transaction (level 1) and the relationship which contains the transaction (level 2) belong in a wider context of other relationships. Langford's very sensible observation that "education and teaching cannot be understood unless they are thought of as social phenomena; and that social phenomena, in turn, cannot be understood unless they are related to their social context"[26] should place teachers and the work of teachers, especially insofar as they interest us as teacher educators, in a richer context than isolated transactions and context-less relationships. Our interest in teacher-education (if it is to be more than a matter of the transmission of a set of methodological prescriptions) is in teaching as a social phenomenon. We are involved with commitments and concerns which go beyond the constitutive pupil/teacher relationship and which, to some extent, will determine the form which this relationship will take. Central are teachers' relations with one another as members of the same occupational group. It is this group identity which is central to models at the third level, models which are variants of the occupational perception of teaching.

Conventionally we can identify three main variants (although historically we could include trades, crafts, guilds and so forth): a vocational model, a professional model and what I must call a "job-for-pay" model (this last usually, but not always, in an organised form as a trade union). These models have certain broad characteristics in common. Each is an attempt to portray teaching as a collective engagement conferring collective identity which will have a consequential effect on individual identity. In other words whether I regard teachers collectively as members of a profession, of a vocation or of a "job-for-pay" will determine how I perceive myself and my immediate colleagues as teachers; it will determine my commitment to teaching and to the relationships it involves; it will determine my perception of the social significance of the work of teachers generally. Each also defines, in some way, the status and significance of the occupation relative to other occupations. Both the vocational model and the professional model involve the notion of an occupation which is conducted "on a higher plane" as it were than most other occupations. In the case of vocation this superiority is a function of the originative impulse, the supernatural calling with its concomitant notion of natural fitness or aptitude.[27] Teachers, unlike plumbers, shop-assistants and public-convenience attendants but like nuns, priests and brothers are born, not made. In the case of the professional model the superiority is conferred not by natural endowment or divine selection but by the putative possession of high levels of expertise, autonomy and ethical purpose acquired during initiation.[28] On the other hand the "job-for-pay" model challenges exclusivity and attempts to establish common identity with workers in other categories. Here the crucial criterion is taken to be that teaching involves, like all other paid occupations, the exchange of expertise, labour and/or skill for money.

Occupational models are presented as either descriptive or as prescriptive; it is often difficult to separate the two. There is, however, no general agreement as to what form the occupational model should take. Hence we have an increasing clamour for the professionalisation of teaching (seen already in Scheffler) in terms of expertise, control of entry, autonomy and ethical standards and so forth.[29] Gramsci, on the other hand, has argued strongly that the appropriate model for teaching, as for all occupations, is a vocational model. His conception of "vocational" is inclusive rather than exclusive - it breaks down the conventional dichotomy between "vocation" (a way of life) and "vocational" (a means of livelihood). He urges acceptance of the need to recognise that the pursuit of any occupation involves clear moral no less than technical aspects. In Entwistle's interpretation "Vocational education implies a confrontation with ethical, political and aesthetic imperatives bearing upon an occupation".[30] For quite different reasons Gotz argues that a professional model is radically unsuitable to teaching which is, and he stresses it, a "calling". Teaching cannot be treated as a profession "precisely because of what it is, a mode of being in the world, not just a way to earn a living".[31] Such a view clearly goes a long way towards reaffirming the traditional model of vocation as defined by Altman and by Schleck.[32] Traditionally, where the vocational character and exclusiveness of teaching was taken for granted such "ethical, political and aesthetic imperatives" as there were were so much a part of the cultural context of teacher education as to be invisible. Even now institutions of teacher education experience palpable tensions between attempts to conserve the vocational thrust traditional to the enterprise and efforts to replace the vocational paradigm with another. This other need not necessarily be a professional model, however. Recent research stresses that the tension is not between the vocational and professional models exclusively. Meisenhelder has argued, for instance, in relation to college teaching in the U.S.A. that teachers as an occupational group are quite easily seduced by relatively trivial matter such as perceived status and "small freedoms and privileges beyond those granted to other workers".[33] In return for relatively peripheral benefits such as shorter on-the-job hours, research time and facilities, longer holidays and so forth they accept quite ordinary income levels and relative powerlessness in the organisation and control of educational effort at all levels. Ozga and Lawn describe how (in the English and Welsh situation) increasing state mediation in education reduces the status of the occupational group to one pressure group among others. Teachers, despite their aspirations to professionalism, are becoming increasingly dependent on the state for direction, status and standards. Increasingly, research and innovation gravitates from the practitioners to special institutions which, in turn, are dependent on the state and on commercial agencies for funding and support. The occupational group no longer functions as the Authority in the relevant field but only as one provider of advisors and experts for the state and commercial apparatus. The advisors and experts, in turn, become progressively alienated from the occupational realities and increasingly identified with their new masters. Generally, as state control increases, the occupation is incorporated into the context of Government decision-making.[34]

This kind of process reinforces the similarity between the professional and the vocational models. In both cases the real material, and occupational, interests of the group are sacrificed - in the one case for peripheral returns in the other for what Altman calls "returns of a more spiritual nature".[35] Increasingly, both vocational and professional models are a means not of expressing and elaborating the interests of the occupation itself but of controlling it. Only strong and committed action within a trade union context can best serve the real occupational interests of teachers.

My purpose is not to recommend a particular model or variant at this level but simply to indicate, and illustrate, the existence of alternative models at this level and their characteristic pre-occupation with occupational status and control. But the crucial decisions to be made in relation to models at this third level must be made on grounds which the models themselves do not provide. The decision whether to perceive teaching as a vocation, a profession or as a "job-for-pay" is a decision which transcends the models themselves. Here the political/ideological character of teaching becomes inescapable.

Ideological Models of Teaching

It is ideological factors which provide the regulative principles which determine limits to the successive levels of models. Whether or not teaching will be deemed a vocation, a profession or a job-for-pay depends in great measure on beliefs and convictions which we hold about the world beyond the relatively narrow context of teaching. There is no conceptually necessary link, beyond the trivial or tautologous, between teaching and any other category of occupation. Demands that teaching ought to be, or assertions that it is a profession, for example, draw their conviction and persuasiveness not from anything we may wish to say about teaching or professions in general but from prior convictions and commitments. Even the conventional sociological argument that teaching is, or is not, a profession draws upon prior historical and sociological judgements as to what characteristics of occupations will be deemed crucial or definitive. (Teaching as a profession is, it should be remembered, a model and as such includes and excludes selectively.) Or again, when Passmore describes teaching as "a covert triadic relation" (which is a first-level, transactional model) he omits a fourth, and arguably more important element which is also usually covert in talk about teaching. "For all X, if X teaches, there must exist somebody who, and something that, is taught by X",[36] is arguably not even three-quarters of the story. What is equally covert in the relationship, and what Passmore does not refer to at all, is the inescapable fact that (unless teaching is a totally irrational behaviour) somebody teaches something to somebody for a purpose. That we may, and often do, take such purpose for granted is due principally to the fact that we take a particular social and political order, and the place and function of the school and of teaching within that order, for granted. What we tend to forget is that schools exist in the first instance to promote, "to foster and instil in pupils", ideals and norms of behaviour.[37] This is true, I submit, not just of religious schools but of school generally.

The purpose of ideological models of teaching is to make the specific ideological purposes of teaching, and of institutionalised learning, manifest and to relate such teaching and learning to wider socio/political issues. Such models will help us decide whether teaching is a means of imposing a particular social organisation and control, an agency for reproducing the requirements of a particular socio/economic order, a location of resistance against such imposition and against such an order (i.e. whether teaching is, or ought to be, a subversive activity), or whether it is a process whereby truth is revealed and transmitted. In such models we articulate the covert implications of such decisions.

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THE PROVISION OF TECHNICAL EDUCATION IN THE CITY OF CORK, 1850 - 1920

Kieran R. Byrne

The Agriculture and Technical Instruction (Ireland) Act, 1899, enabled the recently established local authorities to devise and develop local schemes of technical education. This in effect called for a new administrative structure in Irish education. In stark contrast to the national and intermediate boards that structure was democratised, decentralized and rate-aided.[1]

One of the most striking features of this reform was the manner in which the new legislation was so eagerly received, so readily domesticated and so often outplayed. That response is hardly to be wondered at, however. The emergence of a system of technical education in 1899 was in fact the outcome of a century-long process which originated at local and regional level and gradually assumed more national proportions. The provincial scientific societies, the mechanics' institutes, the schools and classes of the Science and Art Department, all sprang from and were sustained by a spirit and a desire on the part of local communities to take a hand in the educational destiny and by implication the economic destiny of their native region.[2]

In the context of scientific and technical education nineteenth century Cork was typical of many other Victorian cities. In common with other urban centres throughout the United Kingdom, Cork was ably equipped with a scientific institution (Royal Cork Institution); a mechanics' institute with school, library and model room attached; a literary and scientific society; a university college (Queen's College); schools of art and science; and by way of exception, a school of music.

While that impressive record might at first sight suggest a thriving industrial hinterland, the converse was in fact the case. During the half-century after the famine Cork's economic and industrial fortunes fell into sharp decline. The industrial organisation of the city's workforce was little influenced by the new system of factorization, or centralized mass production so characteristic of industrialized centres throughout England. In Cork the traditional pattern of the small localized manufactory and workshop remained intact until the close of the century, and excepting the shipbuilding industry, located in the lower harbour area heavy industry had never been established in the city.[3]

Ironically, however, it was the bleakness of that economic reality which provoked a resilient response to the challenge of industrial renewal in Cork, as attempts were made to recapture the prosperity of a former era, fresh now only in the folk memory of the people. Consistent with Victorian values education was identified as a key aspect in the task of regeneration. An almost blind belief in the power of education to improve all men was to attract considerable support in Cork and the number of educational enterprises already listed testifies to the intensity of that conviction. Flanking this spirit for educational reform was a similar ambition for the promotion of local manufacture. In February of 1841 the Cork Board of Trade was established for that purpose,[4] and a further advance on that initiative came in 1850 with the founding of the Cork Society for the Promoting of Irish Manufacture and Industrial Schools.[5]

Inspired by the London Exhibition of 1851 and in a further attempt to turn the ebbing economic tide a national industrial exhibition was held in Cork in 1852.[6] Throughout the remainder of the century the exhibition strategy was consistently exploited and its educational potential was kept keenly in focus. The 1883 exhibition, for example, was identified "as a school for educating the farming, the artizan and the working classes by means of suitable lectures, demonstrations and reports". In addition, a Permanent Use Committee was assigned "to observe all the proceedings ... with a view to advising ... towards ... a permanent school of technical instruction".[7]

It becomes clear then that in terms of industrially-related education Cork was straining to compete with the changing times and that enterprise was to be more positively generated with the introduction of municipal provision for a school of design in 1850 and a school of science in 1878.

In March of 1847 pursuant on the establishment of a school of design in Dublin, Cork Corporation petitioned Parliament with a view to having a similar school there. In response to that demand an exploratory meeting between representatives of the Board of Trade and the corporation took place. On condition, that it be empowered to appoint its own board of superintendence, the corporation agreed to provide an annual grant of £200 for the proposed school with the Board of Trade contributing an equivalent amount, in addition to a seed fund of £500. Renovated accommodation was acquired at the premises of the Royal Cork Institution and the Cork School of Design was officially opened with all the eloquence of Victorian ceremony on 10 January 1850.[8]

Under the headmastership of Robert Willes and with a roll of 200 students the objectives of the school were:

> To educate a class of original designers who may apply the graces of ornament, as well as beauty of form, to manufactures, and to disseminate a correct knowledge of ornamental art amongst mechanics and artizans and the general community. 9

Four courses of study were offered - perspective mechanical drawing, freehand drawing, ornamental decoration, and mechanical and architectural drawing. The student population was drawn from a wide range of occupations which included engineers, architects, coachpainters, bookbinders, cabinet-makers and shoemakers.[10]

By 1855 the corporation was required to change its funding arrangement for the school and, availing of the Public Libraries (Ireland) Act of that year, a ½d in the £ borough rate was raised in aid of the school.[11] By then also the Department of Science and Art had been established at South Kensington and the general arts committee of the corporation undertook more expansive plans with the introduction of a school of music in 1877 and a school of science in 1878.

By the mid-nineteenth century technical education, though that term was not as yet in vogue, was considered to be constituted of two principal components: art and science. In keeping with a more general pattern the importance of the art dimension was early acknowledged in Cork while the more popular, if not the more important, science element remained neglected. It was in an attempt to redress that imbalance that the Cork Municipal School of Science was established in the first quarter of 1878. A school committee was appointed by the corporation to initiate and direct the new enterprise. Among those selected were the Mayor, the High Sheriff and the city Members of Parliament. A representation of the city's public figures, industrial, educational and ecclesiastical, was also nominated. Included here were, W.K. Sullivan, President of Queen's College Cork and noted champion of technical education; Denny Lane, literary and scientific figure and chairman of the Cork Gas Company, and Canon Coughlan, Roman Catholic clergyman and an acknowledged supporter of industrial education.[12] School accommodation was again acquired at the Royal Cork Institution, so often the launching pad for the city's various educational enterprises, and in December of 1878 a Mr. Latchford was appointed to present courses in mathematics and magnetism and electricity. Teacher salary was to depend solely on the results' fees of the Science and Art Department and the classes got under way with a roll of sixty students.[13] At the end of session science and art examinations, there was a fifty per cent failure rate, however, and that result did little to enhance the school's future prospects. Student numbers declined dramatically and in 1882 only four students registered for the mathematics class and three for a newly-introduced mechanics class.[14] Nor were matters to improve over the following seven years and the brevity with which proceedings at the school were chronicled in the minute books readily attests to an air of despondency.

The difficulties encountered by the school of science over that seven-year period may be attributed to a number of factors. In the context of the local economy the 1880's were particularly difficult times. Consequently employer support, although often appealed for, was not forthcoming. Employers were not willing to subsidise the attendance of apprentices at the school in terms of time off or financial inducement. Secondly, the programme offered at the school was determined in content by what were once described as the feudal educational barons of South Kensington and was not, therefore geared into local industrial needs. Student response in that regard was quite cynical when they found teachers more concerned with results' fees than appropriate course content. Finally, the school of science found itself competing with the more widely supported and longer established school of art for the attentions of the corporation committee and when it came to financial allocation the school of art always achieved the preference of that middle-class body.[15]

In the wake of the Technical Instruction Act 1889 the committee of the school of science reassembled its somewhat dissipated forces and the future career and objectives of the school were closely reviewed. By then also Br. Dominic Burke, a keen advocate of scientific and technical education, had been co-opted to the committee and his enthusiasm and helmsmanship was to prove a decisive influence in the years ahead.[16] The committee immediately addressed itself to three central issues - school accommodation, syllabus and employer support. Little was to be achieved in the matter of improved accommodation. With regard to syllabus, however, more ambitious steps were taken in the belief that the supply of a wide range of relevant subjects would eventually create a demand. When finally announced the new programme comprised courses in mathematics, higher arithmetic, sound, light and heat, theoretical and applied mechanics, magnetism and electricity, inorganic chemistry, botany and steam.[17]

Gradually the school began to loosen the shackles of the constraining Science and Art Directory and an internal examination system was introduced. By 1891 the school announced itself more inclusively under the banner of 'South Kensington and Alternative Curricula'.[18] Those alternative curricula were in time to include the Intermediate Board Examinations in chemistry and commerce and at a later stage the examinations of the Society of Arts and of the London City and Guilds Institute.

In attempting to place particular exmphasis on the practical application of scientific subjects as opposed to theoretical content the school of science encountered significant resistance from the city's trades' council and from individual trades' societies. A rigid closed shop attitude prevailed in Cork, trade secrets were jealously guarded and the initiation of apprentices to trades generally was very firmly controlled by the trades' societies. In terms of trade depression that attitude was particularly introverted. It was not, in fact, until May of 1898 that the impasse was finally resolved. A meeting between the chairman and the secretary of the school committee and the master-builders, coachmakers and railway engineers, was arranged "with a view to opening classes in connection with the industries named".[19] The purpose of that meeting was threefold. It was an attempt to ascertain the needs of local industry and devise plans accordingly. Secondly, it was an effort to create a more harmonious relationship between the school and local industrial personnel. More importantly, perhaps, the meeting was calculated to allay the apprehensions of the trades' societies and secure support for technical instruction classes. The meeting proved successful. The master coachbuilders agreed to cooperate in a new class in carriage and coach building. This class had a novel dimension: it was to be in part a correspondence course with a Mr. C.W. Terry of London and a teacher was appointed locally to carry out instructions from London.[20] Agreement was also reached with the carpenters' society. Mr. Arthur Hill, a committee member and representatives of the Builders' Association and the United Trades' Association drew up a scheme for classes in theoretical and practical carpentry.[21]

The outcome of these conferences was a major breakthrough for the school of science as the traditionally entrenched obstacle of the closed shop had been prevailed upon. It is clear, however, that such a successful conclusion was not reached without a degree of compromise. The trades' societies were permitted a contribution to the course content and in the case of the conservative carpenters' society it was insisted that the carpentry class teacher be appointed from the body of its membership.

That the school of science had reached a new level of maturity by the close of the century is readily manifest in the range of the programme offered for the session 1899/1900. That programme comprised fourteen subjects including theoretical chemistry, magnetism and electricity, bootmaking, carpentry, and in a sexist society, dressmaking, millinery and cookery for women.[22]

With the introduction of the new act in 1899 the committee of the school of science was absorbed into the newly established Cork County Borough Technical Instruction Committee which then took responsibility for the school of art, the school of music and the school of science, to be known thereafter as the technical institute.[23] A school of commerce was opened later in 1908.[24] An important measure of continuity between the old and the new committees was maintained, however, with six of the school of science committee continuing to serve under the new regime. The changeover was, therefore, smooth and the new legislation all the more quickly exercised.[25]

Mr. E.A. O'Keeffe was appointed headmaster and organising secretary in May 1901 at a salary of £300. In addition teaching staff was employed at a fixed salary for a teaching period of 30 weeks and consequently became more secure and independent of results' fees and external curricula.[26] The freedom and individuality of the technical institute to be architect of its own design was a consideration to which the headmaster devoted early attention. In his report for the session 1903/4 he pointed to one area where reform was urgently needed. Arguing that the examinations of the Science and Art Department, the Society of Arts and the London City & Guild Institute served only to inspire cramming-type courses

O'Keeffe called for the introduction of internal assessment and school based award. Internal examinations provided for greater curricular flexibility, and insured that subject content was attuned to local industrial requirements. During the following session, internal sessional examinations were introduced and class certificates were awarded. Assessment criteria included class attendance, homework, class work, and practical and written examinations.[27]

By 1909 the need for improved accommodation in a centralized premises was becoming increasingly evident. The number of subjects had increased to twenty and the student population was recorded at 1,210 with an average attendance of sixty-five per cent. Meanwhile in an attempt to meet the ever-increasing demands the committee rented rooms at the Model School in Anglesea Street in addition to a further premises at 13 Union Quay.[28]

The inspector's report for the session 1909/1910 made specific reference to the acute accommodation problem stating that "the difficulties arising from the widely separated sub-divisions of this school, as already mentioned in previous reports, were again detrimental to the best interests of the school".[29] That plea was further buttressed by an earlier demand from the headmaster who believed that technical education could only flourish through the acquisition of a central premises. In an attempt to shape a new future for technical education it was the headmaster's ultimate goal that Munster should have a central technical institute located in Cork but that proposal was never to materialise.

It was towards the objective of securing more requisite accommodation that the committee turned its energies over the period 1909 to 1912. At meetings between officials of the central department and the technical instruction committee the proposal met with every support, save the critical financial one, since the department did not have a building fund.[30] Relying on its own resources, then, the committee proceeded to raise a loan of £16,000 on the security of the city rates. The department for its part agreed to assist in the repayment of that loan through its Irish Development Fund.[31]

No less than five locations were painfully considered for the new school site when finally, and not without a certain sense of exasperation at the delay, Sharman Crawford, a committee member, offered a site "free of charge and forever"[32] at a location formerly occupied by Arnotts Brewery in Fitton Street (modern Sharman Crawford Street). The site was ideal, centrally located between the north and south sides of the city, and the offer was readily accepted by the committee. The construction contract got under way late in 1909 and on 16 January 1912 the new school was formally opened by the Lord Mayor, Alderman Simcox, and dedicated to Sharman Crawford.[33]

Over the period of the building programme it was policy that local labour be employed and that local materials, where possible, be used. In this way the committee proved alert to the need for an harmonious relationship with the adjacent labour force and the school when completed stood as a creative expression of the expertise of the artizans of Cork.[34]

Apart from the advantages of a centralized premises the new technical school afforded fresh opportunities for curricular expansion. Specific rooms were allocated each practical area including carpenters' and plumbers' workshops, electrical and engineering departments, building construction and drawing offices, in addition to cookery, laundry and dressmaking rooms.[35] Student numbers continued to rise and average attendance increased to seventy per cent. A students' union was established and the school now began to organise on the social front as well.

One of the most successful departments at the institute over the years was the mechanical and electrical engineering department. That efficiency is well illustrated in the inspector's report for the session 1911/1912 which recorded that "the instruction here maintained its former high standard of efficiency, homework was encouraged, exercises were set, supervised and corrected ... students worked diligently at home and in the workshops and classrooms".[36]

It had also become the practice that students studying engineering at university college attended evening classes in engineering at the technical institute and in 1912 the technical instruction committee moved to formalize that arrangement. Bertram Windle, the college president and an avid proponent of technical education responded enthusiastically to the prospect of an alliance between college and institute. After some negotiations the technical instruction committee agreed to open day classes in mechanical and electrical engineering to further facilitate the university students.[37] Ambitious as ever the committee then sought to secure recognition for its courses from the senate of the National University of Ireland. Though the case was keenly argued, despite the best efforts of Windle the senate proved uncooperative. Expressing disappointment at that outcome Windle wrote to the committee that "the representatives of Cork were in a miserable minority on the senate ... the overwhelming Dublin majority are masters of the situation".[38]

If the attendance of university students at the institute's classes appealed to the vanity of the committee there was little self-satisfaction evident when a letter from Lr. Col. R. Alexander, Rifle Brigade, Cork, inquiring if British soldiers were admissible to classes was laid before the committee in January 1914. In a response that was scarcely enthusiastic the committee replied in the affirmative. That decision was to have some repercussions, however. Committee members were lobbied by parents to oppose the admission of the military and two sections of the student body objected similarly. In addition, the Cork United Trades and Labour Council protested against the military's application.[39] Given the role of the trades' societies in the development of technical instruction and the importance of their goodwill the committee now began to approach the issue with a greater degree of circumspection. Refusing to draw lines of combat it elected to procrastinate and as the matter arose at committee meetings it was referred for stock 'future consideration'. With the upsurge of nationalist opinion in Cork during the period 1915-1922 the British army was not in a position to press the matter and so the committee's strategy of procrastination paid off. The problem went away.

The vigilance of the Trades Council remained, however, and in the inter-war period the council forced the hand of the committee to oppose the retraining of disabled British soldiers on the grounds that it was to the detriment of the members of the various trades affected. The course was not offered.[40]

For a borough of its size with an average population of 73,000, Cork was among the leading centres of technical education in Ireland by 1920. That achievement may be attributed to a complex web of factors and circumstances. By the turn of the century the city was heir to a formidable inheritance of industrially related education. Cork was fortunate also to have in its midst individuals whose interest in technical education was sustained and dynamic. Here one may briefly include Thomas Dix Hincks, Richard Dowden, (Richard) Thomas Deane, Sir Robert Kane, William Kirby Sullivan, George Poole, Bro. Dominic Burke and Sir Bertram Windle.

In a History of the Problems of Education J.S. Brubacher has drawn attention to the importance of the philanthropic fiscal resource to educational development in the nineteenth century.[41] In the sphere of technical education in Cork that source was generously available and the munificence of the Crawford family is but one of the many possible examples. The impulse for that generosity stemmed from a sense of local pride and a resurgence of municipal self-confidence. In an arena of regional competition the local pride motive acquired a new cutting edge and in Cork it was never less than compelling. In that regard it is interesting to note how that same motive was one on which Chief Secretary Wyndham pinned so much hope in his endeavours to decentralise the Irish educational system during the early years of this century. His expectations were obviously heightened by the success of the local technical instruction committees which harnessed to the full Wyndham's cherished notion of the "stimulus of local interest".[42]

Acknowledgement of the zeal and plural ambition of successive committees must also be registered. Meetings were held and attended regularly and as demands became more pressing sub-committees were appointed and assigned specific duties. An harmonious relationship existed between committee and school staff and the principle of professional accountability was always to the fore. Headmasters were required to attend committee meetings and to provide accounts of developments and proposals at the institute. Moreover, headmasters presented annual reports and these along with the committee's general reports were published for public consumption. These instruments of accountability, therefore, made for open democratic administration and provided the local ratepayer, the private subscriber and the prospective student with a statement of objectives and achievements.

Constructive too was the relationship between central authority and local committee. The major and perhaps inevitable contentious issue was finance. Nor was that problem peculiar to Cork. In Limerick it was wryly remarked that the Department of Agriculture and Technical Instruction had money for everything, with two notable exceptions, agriculture and technical instruction. The department for its part was ever-advising committees to lobby local M.Ps. to prise open the treasury purse. Departmental officials gave 'off the record' advice that limited budget deficits would prove a helpful source of pressure.[43] In keeping with these sentiments local annual reports often led with their deficit, they took to deception early and made a success of it. On a visit to Cork T.W. Russell, the Vice President of the department, stated that he never came to Cork but he left a poorer man.[44]

The main link between department and technical instruction committee was the inspector. Breaking with the traditional inquisitorial mould the new inspectors were creatively assessive and supportive of teachers. As a result their reports were eagerly awaited, closely analysed and constructively interpreted at committee meetings.

It has often been alleged that excessive authority was retained at central level. It must be appreciated, however, that the department as a new enterprise was awkwardly and vulnerably poised between a defence of democratic institutions and popular participation and a defence of efficient bureaucracy. In Cork, however, the local committee very often tailored departmental directions to subserve its own needs.

Impediments to the path of progress in Cork included the ill-preparedness of incoming pupils, irregular attendance and the sometimes significant difference in numbers beginning and finishing courses. The lack of easily negotiated avenues of mobility between elementary and technical school was a common contributory factor to many of these problems.

It is only with further regional analyses that achievements in Cork can be more closely assessed and in the absence of a comparative approach to local history certain questions will remain unanswered. That said, however, it would be a very grudging historical commentary which would not admire the flow of ideas, the indefatigable energy and the unquestionable sincerity shown by these early pioneers of technical education in Ireland.

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THE TRIM MODEL SCHOOLS

Lorcan Walsh

In their report for 1835 the Commissioners of National Education, who had been appointed to administer the system of elementary education as outlined in Stanley's letter of 1831, noted:

> We are of opinion that, in addition to the general training institution, thirty two district model schools should be established . . . that those model schools should be under the direction of teachers chosen for superior attainments, and receiving superior remuneration to those charged with the general or Primary Schools: and that, hereafter, each candidate for admission to the training establishments, should undergo a preparatory training in one of them. [1]

It was estimated that it would take about nine years to build the thirty-two model schools at a construction cost of £24,000.[2]

This plan was put forward in response to the serious want of qualified and competent teachers. The setting up of a Central Training Institution had been provided for in Stanley's letter. However, by 1837 only 297 teachers had been trained at a time when 1,300 national schools were in operation.[3] But still plans for the model schools remained dormant. In the 1837 report it was announced that the number of proposed district model schools would be reduced to twenty five.[4] Each of the model schools, it was proposed, would consist of two departments, one for elementary teaching, the other for scientific and manual instruction. Furthermore, it was hoped to connect "a model farm of about 40 acres" to each of the schools. The cost of constructing the twenty-two schools was estimated at £15,000.[5]

It took another eight years before the proposals began

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to be put into effect. It is difficult to explain the delay in the light of the continuing want of competent teachers. Perhaps the delay was due to the initial financial outlay which the construction and administration of the model schools would entail. An application for an agricultural model school was rejected by the commissioners because of "not having funds at their disposal".[6]

Whatever the reason it was not until the 1845 report of the commissioners that the model school idea was resurrected.[7] Several superintendents of the National Board were requested to recommend sites for district model schools. Many of these sites were found "ineligible".[8] However, six sites were accepted, according to the report of 1846.[9] It was even maintained that the erection of model schools would begin on the chosen sites of 1846: Coleraine, Ballymena, Newry, Bailieborough, Clonmel and Dunmanway. The high cost of the proposed plan for further model schools would mean that progress would be "by slow degrees".[10] It was accepted at a meeting of the commissioners in March 1846 that funds would only allow for the erection of schools at about half of the sites accepted.[11] At a meeting of the commissioners in April of the same year the plan of the resident commissioner for model schools was proposed and accepted.[12]

This plan returned to the idea of thirty-two district model schools: "a certain number . . . to be established in the chief towns of Ireland; the remainder in smaller towns and villages throughout the country". Each school was to contain three separate schools: a male school, a female school and an infant school, or an agricultural school. Each male school was to have a residence for the master, and a dormitory to accommodate three "candidate teachers". A residence for the mistress of the female school was to be provided for "in the neighbourhood of the school". One female candidate teacher was to be placed under her care. The cost of boarding and lodging the candidate teachers would be borne by the commissioners. The course of training would last for six months: "so that in each district six male and two female teachers should be annually trained - in all 256". On leaving the model school, it was foreseen that the candidate teachers would serve for two years in an ordinary national school, and then complete his or her training at the national model school in Dublin. It was expected that the ordinary national schools in the region of the model school would supply sufficient aspirants to fill the role of candidate teachers. Regarding capital expenditure, it was estimated by the resident commissioner that the expense of building and furnishing each model school would not exceed £800.[13]

The earliest district model schools were opened in 1849. Newry and Ballymena model schools began in May of that year, Clonmel in June and Dunmanway in August 1849. The model schools of Coleraine, Bailieborough and Trim were opened in May of 1850. The cost of erecting these schools worked out at an average of £5,000 each, a far cry from the 1846 estimate of £800.[14]

Trim model school was opened on May 7th 1850 by the Resident Commissioner,Alexander MacDonnell. Present at the opening were some of the Protestant and Roman Catholic clergymen of the area with "a few of the gentry" present. At the opening, 222 pupils presented themselves. This was a greater number of pupils than it had been intended to admit. But on account of the numerous applications, according to the District Inspector Mr. Newell, a greater number than provided for in the "building of the school was accepted into the school".[15] Still, according to the inspector, less than half the number of applicants were

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accepted into the new model schools. Great care, it was claimed, was taken in selection of teachers: "They have been all trained, are of first class and were selected with great care, and after strict examination".[16] The building itself was described by the district inspector:

> All the rooms are lofty, well ventilated and warmed. The work has been executed in a finished and permanent manner; and the comfort and convenience of the inmates have been carefully considered. The usual wash-rooms, closets for bonnets and caps, are attached and every proper provision made to secure cleanliness and order. The play-grounds are spacious, and each is provided with a fountain, and with means of enabling the pupils to enjoy several gymnastic exercises. 17

It was still estimated that the increased cost would amount to between £2,800 and £3,000.

The Trim model schools were situated about a quarter of a mile from the town centre, on the Dublin Road, overlooking the ruins of a magnificent medieval castle.

The district inspector admitted however: "The distance of the school from some parts of the town is, perhaps, greater than is desirable". This was a criticism levelled at the school by Mr. Cowie and Mr. Stokes in their report for the Powis Commission. They maintained that while the sites for model schools in general were "well chosen", the Trim and Omagh model schools were "inconveniently placed with respect to the railway, and are in low, damp situations". Cowie and Stokes expressed surprise that such sites had been chosen.[18]

When one considers the local enthusiasm for a model school in Trim and the attention given by the commissioners to choosing a suitable site, it is evident that it was only after long delays that agreement on its location was reached. The minutes of their meetings in 1846 and

1847 show the great number of times the sites for the model schools in Trim, and other places were discussed. Despite being pressed for a final decision by the local Catholic and Protestant clergymen, the commissioners only decided to proceed with the plans for model schools in the proposed site in Trim after repeated consultations with their law adviser, Trim Corporation, and the Attorney-General.[19] The fact that the tenant in possession of the plot of land had set potatoes further delayed the conclusion of the lease.[20] Finally, in November 1847 the lease was finalised.[21] This brought to an end a long process which occupied a lot of time and the energies of the National Board. For Messrs. Cowie and Stokes to criticise the National Board for their choice of site at Trim reveals an ignorance of the long process undergone in choosing the site and of the fact that it was originally selected as a result of local pressures. A similar thorough investigation was followed in the choice of other sites for model schools around the country. Local applications for model schools accompanied by proposed sites were carefully examined by the National Board. Once opened, the model schools were to serve particular purposes: to promote the united education of Catholics and Protestants; to exhibit the best examples of national schools; to give a preparatory training to young teachers and to supply a considerable number of well-prepared students for the Central Training College.[22]

The fact that there was no other national school in the town of Trim and no school managed by any of the religious orders ensured that there was a plentiful supply of pupils for the new model schools. The average daily attendances for the last eight months of 1850, 1851 and 1852 were 254, 236 and 231 respectively.[23] Towards the end of the decade the figures remained impressive: an average daily attendance for 1858 of 274, and in 1859 there was an average daily attendance of 269.[24]

A significant feature of the Trim model schools was the social background from which the pupils came. About the Derry model school, one witness to the Powis Commission admitted:

> There was a class of pupil attending that I was ashamed to see there. One was the Mayor of Derry's, another was a wealthy merchant's, and the sons of other most successful people well able to pay £10 or £20 a year for the education of their sons. 25

Messrs. Cowie and Stokes concluded:

> Leaving out the few cases where the poor children form a considerable part of the school, the State is paying a most extravagant sum for the education of children whose parents can very well afford to educate their own children. 26

This charge was not one which was levelled at the Trim model school. The district inspector reported in 1851 that the town of Trim "is not generally wealthy, and consists of fewer persons of what may be termed the middle grade of life".[27] Table 1 shows the professions of the parents of children on the rolls during 1851.

The high number of pupils coming from homes where the occupation of the chief wage earner was that of a labourer meant that they could not pay the usual rates of payment for entry into the model schools. Consequently, the commissioners did not insist on the customary fees, that is: fifty percent of the pupils pay 1d per week; four-sevenths of the remainder to pay 2s. 6d per quarter; and the rest pay 5s. 0d per quarter.[28] Over the first nineteen months of its existence, five hundred and six pupils had been struck off the Trim rolls.[29] A majority of those were removed for non-payment of fee.[30] Consequently, the district inspector was authorized in April 1851 to admit pupils free of charge.

TABLE 1

OCCUPATION OF PARENTS OF CHILDREN ON ROLLS, 1851

Baker	8	Labourer	107
Barrack-sergeant	2	Mason	13
Blacksmith	3	Miller	5
Builder	4	Painter	4
Butler	5	Pensioner	2
Butcher	6	Printer	1
Carrier	9	Manufacturer	1
Carpenter	7	Pawnbroker	1
Coachman	3	Contractor	3
Cooper	3	Relieving officer	3
Civil Bill officer	1	Saddler	2
Deputy governor of jail	2	Shoemaker	13
Farmer	37	Shopkeeper	20
Gardener	8	Tailor	6
Hotel-keeper	4	Turnkey	11

SOURCE : Appendix to Eighteenth Report of Commissioners of National Education for 1851, p. 85.

Applicants who wished to obtain a place in the model schools free of charge had to produce from their respective clergymen a certificate of inability to pay.[31] This concession was availed of during the following decade. In 1852, fifty-three pupils availed themselves of free places, while the number for 1853 was thirty nine, representing fifteen percent of the total number of pupils present. Sixty-eight percent of the pupils paid just 1d per week and the remainder paid either 3s. 6d per quarter or 5s. per quarter.[32] In the Newry model school, for the same year, no pupil was allowed to enter without paying fees. While sixty percent of the pupils paid 1d per week, forty percent paid at the higher rates.[33]

The habit of admitting pupils free of charge was continued into the 1860s in Trim model schools. (The only other model schools to carry out such a policy were Lurgan and Inchicore, on isolated occasions.[34]) The district inspector noted in 1869, however, great irregularity of attendance in Trim model schools, and that the chief culprits in this regard were those granted free places.[35] Consequently, he recommended the scheme to cease. This recommendation was obviously accepted because, in 1868, 140 pupils were admitted free of charge but by 1871 only eight pupils fell into this category; in 1872 the number had fallen to two.[36] The matter was reopened, however, in 1887 when Mr. Moloney, the district inspector, received a letter from the commissioners granting him permission to accept into the model schools a certain number of pupils free of charge "provided the parents or guardians of the children are unable to pay".[37] This was granted in response to a request by the district inspector and headmaster of the model school, Mr. Sharkey. It is not clear for what period of time the new scheme operated or how many pupils benefitted.

The policy of granting free places to deserving pupils must have meant that pupils, who otherwise would not have attended school, received an opportunity to be educated free of charge. The criticism that the model schools catered for middle-class children chiefly was untrue in the case of Trim.

It was not until 1867 when the Sisters of Mercy opened a school for girls in the town that any other school was available to Catholics. Until this time the Trim model school served an important purpose of providing education for the poor of Trim and its vicinity.

The expenditure of the Commissioners of National Education on the model schools was extensive. By 1867 £6,829.10. 0, was spent by the commissioners for site, buildings, furniture and repairs in Trim alone. The corresponding figure for Clonmel, which had roughly the same number of pupils on roll, was £7,865.2.3. Along with this was the cost of paying the teachers in 1867 which amounted to £859.0.8 in Trim and £777.9.2 in Clonmel.[38] Messrs. Cowie and Stokes, who compiled these figures, concluded:

> When we consider the proficiency of the children and the cost of the schools, we are driven to the conclusion that the result is not commensurate with the outlay, and that a radical reform is needed.

They went so far as to recommend that the model schools be "disestablished and disendowed".[39]

Cardinal Cullen considered the money spent on model schools "an enormous amount" achieving "little good". If the same amount of money were spent on ordinary schools throughout the country, "a great deal of service would have been done, and we would not have so many complaints about the bad accommodation in the schools as there are at present". He concluded that there was a great waste of money on the model schools.[40]

The arrangement whereby the model schools were built and supported entirely by state funds meant that the financial outlay would always be substantial. The fact that teachers in model schools received higher salaries than ordinary national school teachers and the proliferation of various "gratuities" and prizes available to pupils and teachers in the model schools meant that the high financial commitment was stretched even further. Because the model schools catered for middle-class children, particular credibility was given to the criticisms of Cardinal Cullen and the Powis Commission.[41] The Trim model schools catered for poorer children and, therefore, justification existed for the financial outlay. Another factor which must be taken into account is that the building of model schools was a major boost to local economies. The original application for a model school in Trim was spurred on by the knowledge that the expenditure of "£700 or £800 amongst labourers and tradesmen" would contribute to "alleviate their distress".[42] When this expenditure was increased to £5,000 the ensuing benefits must have been even greater than anticipated.

One of the aims of the model schools was to provide a non-denominational system of education. In this regard Trim was fortunate in having two local clergymen, Rev. R. Butler, a Protestant, and Rev. J. O'Connell, a Roman Catholic, who were active in promoting the idea of a model school. The district inspector reported in 1858:

> The two great promoters of the schools, the Very Rev. Dean Butler, and the Very Rev. Dr. O'Connell, P.P. continue to take a lively interest in their work and success. [43]

Of the pupils who were attending the schools in Trim at the end of 1851, ninety-two percent were Roman Catholic and the remainder were of the Established Church. The imbalance was caused by the facts that Trim had a predominantly Roman Catholic population and that there already existed in Trim a well-established school for Protestants before the opening of the model schools. The imbalance had been somewhat corrected by 1864 when the numbers attending the model schools of the Established Church persuasion had doubled to sixteen percent of the total. The Roman Catholic proportion had decreased to sixty-two percent of the total by 1868. This proportion had returned to ninety-two percent by 1900.[44]

Table 2 shows the percentage of Roman Catholic and Protestant pupils attending all the model schools from 1852 to 1866. It is immediately clear that the Roman Catholic percentage never reached the high proportion arrived at in Trim.

TABLE 2

PERCENTAGES OF ROMAN CATHOLICS AND PROTESTANTS ATTENDING MODEL SCHOOLS, 1852 - 1866

Year	Roman Catholics	Protestants
1852	63.8	36.2
1856	67.7	30.3
1860	46.4	53.6
1861	43.0	57.0
1862	36.6	63.4
1863	30.9	69.1
1864	27.5	72.5
1865	27.6	72.4
1866	24.2	75.8

SOURCE : Reports of the Commissioners for the years 1852 to 1866

Initially the Roman Catholic hierarchy supported the idea of model schools. A document written by a number of Catholic archbishops in 1840 contained the sentiment:

> It would be very desirable to have a Model School in each of the four provinces, when the funds of the National Board of Education might be found sufficient for that purpose, as such an establishment would inspire the inhabitants of the province with greater confidence in the System of National Education.[45]

With the emergence of Archbishop Cullen as leader of the Catholic hierarchy, however, and a growing confidence within the Catholic community, attitudes were to change quickly. The question of control was to be central in the controversy. The commissioners exercised complete control over appointment of teachers. Archbishop Cullen objected strongly to this aspect of the model schools.[46]

The Synod of Thurles proclaimed that a separate system of education for Catholics and Protestants was the desired aim of the Catholic hierarchy.[47] In 1866 the Catholic bishops called for the closure of the model schools.[48] On the occasion of the opening of new schools under the care of the Christian Brothers in 1869 Archbishop Cullen warned:

> I give notice to any Catholic parents who will obstinately persevere in keeping their children in the lion's den (that is Model Schools) . . . that I will feel bound to deprive them of the advantages of the Sacraments of the Church. 49

In the light of such criticism it is not surprising that the support of Catholics for the model schools waned. It is noteworthy that in many towns where there were model schools, religious orders also set up schools. The Christian Brothers, for example, had set up schools in Athy, Cork, Enniscorthy, Kilkenny and Limerick by the late 1860s. These and other similar schools brought about a serious drain of Catholic pupils from the model schools. Trim did not escape totally from the controversy. A meeting took place in May 1858 in Trim of the "Building Committee of Trim Convent of Mercy".[50] The meeting noted that £2,000 had already been gathered towards the construction of a building for the Sisters of Mercy. In April 1868, the sisters opened a school and expressed the wish to be recognised as a national school by the Commissioners of National Education. Two hundred and eighty-five pupils were present on June 28th 1868.[51] Many of these pupils came from the model schools. The district inspector complained in 1870 that in 1868 the Roman Catholic pupils in the female and infant schools were removed to the new convent school.

A few from time to time returned, according to the inspector, "only to be again withdrawn by the same directions as soon as their return became known".[52]

Table 3 shows the number on the rolls of the Trim model schools for the years 1867 to 1871. There is no doubt but that the advent of the Sisters of Mercy to the town affected the model schools. It was the girls' school which was most affected. The average daily attendance in the three model schools in 1871 was 135. The average daily attendance of girls, however, was only 13.2.[53]

There is evidence that the exodus of girls from the model schools was on account of other than religious reasons. The district inspector in a bitter note about the principal of the girls' school in 1871 declared:

> One would expect that she would concentrate her attention with increasing energy on the few left, if with no higher purpose, at least to show that the decrease in the attendance was not in any way attributable to neglect on her part. This she has not done although I have frequently remonstrated with her. [54]

Four years earlier the Secretaries of the National Board had noted the lack of efficiency of the drawing teacher in the female school.[55]

TABLE 3

NUMBER OF PUPILS ON ROLLS OF TRIM MODEL SCHOOLS, 1867 - 1871

1867	589
1868	473
1869	276
1870	289
1871	321

SOURCE : Reports of the Commissioners of National Education in Ireland for 1867, 1868, 1869, 1870, 1871

While the model schools suffered a severe setback in the late 1860s, they continued to operate on a smaller scale, still fulfilling one of the main aims of model schools, that is, non-demoninational mixed education.

The female and infant schools were amalgamated because of falling numbers in these departments.[56] The boys' school was not so affected and while rumours that the Christian Brothers were going to set up a school in the town were circulating in 1870 the boys' model school remained the only source of an elementary education for Catholic boys in Trim.[57] Consequently, in contrast to the vast majority of the other model schools the proportion of Catholics remained very high. Still it must be admitted that the Commissioners of National Education were giving up on their aim of mixed education. The two denominational schools in Trim, that of the Sisters of Mercy and the Church of Ireland, were receiving state aid and were recognised as national schools by the turn of the century. By 1910-11, 177 schools of the Sisters of Mercy were receiving grants from the commissioners, including schools which were in direct opposition to their own model schools.[58] While the Trim model school maintained to some degree the notion of mixed education, its operation remained a poor shadow of the original designs.

What distinguished the model schools from the ordinary national schools was the training of "candidate teachers", or, as they became known, "pupil teachers". A dormitory was provided in each of the model schools for the male candidate teachers. Accommodation nearby was to be provided for female candidate teachers. The training at the model schools, for a period of six months, was seen originally as simply a stepping stone to a full training course in the central model schools. The pupil-teachers were to be chosen from a pool of paid monitors who would in turn be selected annually from among deserving pupils in the surrounding national schools.

Thus a framework of promotions within the national board system was provided. In 1846 the commissioners boasted:

> We have provided that talent should have a means to rise, but that elevation should be gradual; that each step in its progress should lead naturally to the next; and that at each stage, the abilities of the person, his disposition and manners should be prepared for the further advancement which awaits him. 59

As Susan Parkes says: "the district model schools were seen as a fundamental part of the whole structure, proving a bridge between the ordinary national school and the central training institution".[60]

The entry requirements for pupil-teachers were laid down by the commissioners. The candidates were to be chosen by the district inspector following an examination, "their natural aptitude for teaching and their general fitness being also considered".[61]

During the first few years of the Trim model school, the pupil-teachers remained for one year, not for six months as originally planned. By the end of 1851, eight pupil-teachers had finished their year's course of training.[62] In 1853 four pupil-teachers graduated and obtained situations as teachers in national schools.[63] There were problems, however, with the quality of candidates for the position of pupil-teachers. In 1853 the head inspector reported about Trim:

> The young men admitted into the establishment in the capacity of Pupil-Teachers are quite inexperienced in the art of teaching, imperfectly, if at all, acquainted with several of the subjects of instruction, and consequently require from the Head Master,

> even during school hours, so continuous a superintendance as to prevent him perhaps from giving to any class its due share of attention. 64

The head inspector repeated his recommendation of 1856 that the period of training be extended to two years instead of one.[65] The correspondence of the Trim model schools, however, shows that the commissioners had already given permission to extend the period of training for pupil-teachers to two years.[66]

At the opening of the Belfast district model school in May 1857, Mr. Keenan said that pupil-teachers "of distinguished merit" could carry on their course of training for two years.[67] By the 1860s the policy of continuing the period of training in Trim to two years was very common. Indeed, a letter from the Secretari of the National Board to Mr. E. A. Conwell, inspector at Trim, gave permission to a pupil-teacher to continue his period of training to longer than two years.[68] By 1868 ninety-six pupils had served as pupil-teachers in the Trim model schools, forty-two of whom were still in the board's service.[69]

The life of a pupil-teacher was difficult. Pupil-teachers had to rise each morning at 5.30 a.m. when such duties as cleaning of classrooms and study commenced. At ten o'clock they joined the rest of the pupils in the school in the course of their study. When school finished at 3.30 p.m. there followed recreation, study and cleaning.[70] Even the diet of pupil-teachers was laid down in detail: for breakfast they were to receive one pound of bread, 1 pint of milk, on alternate days 1 pint of cocoa. For dinner on Wednesday the menu consisted of 1 lb. of bread and 4 oz. of rice; eggs were given occasionally instead of rice.[71] Mr. Newell, the district inspector, commented in 1851:

> I hold it to be of paramount importanct that, while the dietary is sufficient, it should be simple . . . not too far removed from what they have been used to, or too nearly approaching what might give them ideas of luxury. 72

On completion of their course of training, the pupil-teachers faced an exhaustive examination encompassing questions on history, money matters, the National Board lesson books, arithmetic, algebra, natural philosophy, school management, English language and grammar.[73] If the pupils performed adequately in the examination they could then be appointed to any of the board's national schools.

Overall, one can see the Trim model schools as an ambitious project gaining support at first from both local and central sources. They aimed at providing mixed education and in contrast to the other model schools throughout the country continued to attract a considerable proportion of Roman Catholics. While the Catholic clergy became more and more critical of the model schools, as the century progressed those in Trim remained a centre where mixed education, to some degree, did take place. Furthermore, there was no suggestion that the Catholic boys of Trim suffered greatly because of the non-denominational system of education there. Recognition by the National Board, however, and support of two denominational schools in the town (one Catholic and one Protestant) showed that the ideal of mixed education was no longer being pursued by the Commissioners of National Education.

A constant criticism of the model schools and one which was repeated in the Dale Report of 1904 was that they provided education at a very cheap rate to middle-class pupils.[74] This is a charge which did not hold in the case of the Trim model schools. The poverty of the town and district ensured that the model schools were providing an essential service. The fact that so many "free" places existed in the Trim model schools showed that a genuine need was being answered.

The efforts by Trim and the model schools to respond to the serious want of qualified teachers are much more difficult to evaluate. The extension of the period of training from six months to one year and then to two years meant that many of the pupil-teachers took up posts in national schools and never received further training. The issue of untrained teachers was a great weakness of the national board system of education. The model schools did not solve the problem. They only ensured that it was less serious than it might otherwise have been without the limited amount of training imparted by them.

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ARCHBISHOP WALSH AND ST. MARY'S UNIVERSITY COLLEGE, 1893 - 1908

Finbarr O'Driscoll

The problems facing women students seeking higher education in late nineteenth century Ireland were considerable. Those who had received the benefit of a good second level education found that the existing university colleges were for male students only. Fr. William Delany S.J., who was president of University College (formerly the Catholic University, now entrusted by the hierarchy to the Jesuit Order) refused to let women attend the fellows' lectures in 1882. The Irish Association of Women Graduates (IAWG) appealed to the senate of the Royal University, seeking to gain access for women students to these same lectures. This too was turned down. The end result was that Alexandra College which had been incorporated under the Educational Endowments (Ireland) Act, 1887, set up a university department that was open to Catholics as well as Protestants. This was not to the liking of Dr. Walsh, Archbishop of Dublin as he always wanted Catholic women to be educated in a Catholic environment. In accordance with his wishes the Dominican nuns' communities of Sion Hill and Eccles Street consented to take charge of a branch house in the south side of the city "in order to facilitate higher education amongst Catholic ladies without obliging them to attend the Alexandra or Protestant Colleges".[1] Dr. Walsh was well aware of the reputation of the Dominican nuns as was illustrated in a letter to the Mother Prioress of Sion Hill a month prior to the opening of the college, wherein he praised their work "more especially in Eccles Street".[2] He pointed out, however, that a void existed which required filling in the field of women's education, namely "a well equipped college".[3] On 5 September, 1893 the new college was opened at 28 Merrion Square, under the name of St. Mary's University College. The wish of Sr. Antonina Hanley, Prioress of Dominican Convent, Eccles Street, expressed eight years earlier in a letter to Archbishop Walsh,[4] was finally fulfilled - a college had been founded "to counteract the harmful effects of this Alexandra".[5] It started its life in Eccles Street as a university department preparing students for the examinations of the Royal University. Mother Patrick Shiel and Sr. Stanislaus McCarthy were its co-founders.

In 1893 the department was transferred, under Mother Patrick to Merrion Square. The Archbishop demonstrated his support for such a Catholic college by volunteering to pay the rent for the first year and also by bestowing one hundred pounds a year for five years on the college to be distributed in scholarships or prizes as the college should decide. The college council directed the course of studies to be undertaken there. It was comprised of Dr. Walsh who was President, members of the Senate of the Royal University of Ireland including Baron Palles, The Right Hon. The O'Conor Don, Fr. William Delany, S.J. and the Right Rev. Mgr. Molloy. The commissioners of education in Ireland were also included, along with the heads of colleges and schools. Among the latter were the Rev. T. Finlay of University College, St. Stephen's Green and the Very Rev. Peter J. Byrne, C.M., President of St. Patrick's Training College, Drumcondra. Aside from the college council, there existed a tutorial committee which consisted of the principal members of the teaching staff and these, in turn, formed a deliberative council to advise regarding all details of the teaching work of the college. The teaching staff was made up of graduates from the Royal University, professors and members of the Dominican community who had been successful in the intermediate and university examinations. The assistant staff was comprised of a number of former students who had also distinguished themselves in the same examinations. No element of compulsion existed with regard to taking these examinations. Dr. Walsh upon studying the proposed prospectus of the college was delighted to see that this point had been stressed. In a letter to Mother Patrick regarding the prospectus, he stated emphatically "I am also making a few small changes in my letter - especially one to bring out that students are to be free to abstain from taking part in the competitive examinations."[6] Those who did not participate in such examinations sat for a well organised system of college examinations, and after two years of such study they received a college certificate as proof of their endeavours.

At the time of opening the college had received over 60 applications from parents desirous of placing their children in the college. Some of these applications it is reported came from England and Scotland as well as Ireland. The Freeman's Journal, previewing the opening of the college, regarded such an institution as "necessary in order to afford Irish ladies an opportunity at home of keeping pace with the educational progress of the age."[7] It also lavished praise on the work of the Dominican nuns for their contribution to girls' education. It stated that

> the country owes the Dominican nuns a deep dept of gratitude for their successful labours in the cause of education. And in the present day, in this era of Competitive Examinations

> when the Public Departments of the State are open to merit alone, the Catholic body, must if it will not lag behind, support generously and work successfully kindred institutions to St. Mary's University College, about to be opened in Merrion Square, Dublin.[8]

Archbishop Walsh's support, financial and otherwise to St. Mary's, was crucial to the survival of the college. In 1897 Sr. Imelda sincerely thanked him for his promise to pay rent and taxes for one year on a residence house for their girls. This was an added extra to the monies he had already pledged to the college. It amounted to £150. One year later, the same sister was pleading with the Archbishop once again for the rent of the residence house.[9] Great difficulty had been anticipated in financing the residence without aid from its mother house at Sion Hill. Her awareness of the need for girls to be properly educated, irrespective of finances, primarily with a view to giving them a career opportunity was portrayed in the following: "I find many parents who from their social position should have their children well educated find it hard to pay and then, others wish to have them educated to get good situations as teachers."[10] As teaching was one of the very few careers then open to women it was essential that the nuns did not allow financial matters to impinge on this right to a career opportunity.

Acquisition of students by the college was a top priority. Some parents of day pupils encountered difficulties with paying the fees but it would appear that the loss of revenue to the nuns was minimal. With the Archbishop's continued support, these unpaid fees would not have been a source of great anxiety to the nuns. They, nevertheless, indicate that the sisters were catering for a number of poor girls. These students may have been able to repay the nuns sooner than they anticipated, particularly if they won any money prizes in the competitive examinations. Mother Patrick had made provision for this. In a brief letter to the Archbishop explaining allocation of funds within the college she stated:

> we have come to the conclusion - to give £50 to Mrs. Gray for the children's maintenance and the rest to come to the college with the understanding that if any of the girls succeed in gaining any money prizes that they will make up to the college from them, whatever is wanting in their college fees. 11

By 1898, the college was beginning to find its feet. Sr. Imelda had managed to put by £200 which enabled her to pay the rent on the residence house for the first time. She added "This I had after paying every expense incurred. This shows how well the college is getting on as when I came here there was only 7s. 1d. to our account in the Bank."[12] The other nuns in the house were unaware of its financial state. Sr. Imelda had been advised by a Fr. Tom Tully to keep it thus, so that the convent at Sion Hill would not find out and then refuse to pay the rent for St. Mary's, in view of its increasing prosperity. To justify herself in not informing Sion Hill of the financial standing of St. Mary's she pleaded that the rent "is only equivalent to our support."[13] However, she did inform the Archbishop of all that was going on, and hoped that he would see matters from her point of view. Being an unendowed college, a healthy financial state was central to its working. So, while others in the community got on with the task of educating, the Prioress was concentrating on matters financial. St. Mary's was fortunate in having Dr. Walsh as a benefactor and, being a pioneering movement of his own making for the higher education of Catholic women, it could only go from strength to strength.

From the beginning, the college sought to repay Dr. Walsh's faith in it by achieving the best possible results. He in turn offered a further £70 prize money for those who would distinguish themselves in the intermediate and Royal University examinations. In his speech on prize giving day he complimented the work of the college and its students and stated that they both

> had been tried by an exacting test, the test of open examination by two public bodies - the Royal University and the Intermediate Education Board - and the college and its students have come through that trying ordeal with a credit far in excess of anything that even those of us who were most sanguine in our hopefulness for its future, had thought of anticipating for it in its first or in any of its earlier years. 14

Despite this success, however, he reminded the audience that this was not the prime function of the foundation. The college existed for a far brighter end than the mere training of students to pass the public examinations of an examining board, no matter how great the success. He pointed out

> Its very name, St. Mary's, must keep the higher and nobler object of its existence always in view of its students. This is not merely a college - it is a Catholic College. The one real reason for its existence is that it is a college where provision is made for filling up the gaps, the wide and unsightly gaps, that of necessity exist in every public examination or of public instruction which takes account of proficiency in secular learning only. 15

Fr. William Delany, S.J., catered for religious instruction within the college. The Archbishop deemed it essential that only Catholic doctrine and theory be delivered within the college, otherwise the danger to the students' faith was seen to be far greater than if the students attended a Protestant college. The interests of the Catholic religion had to be protected at all costs. In his speech on prize giving day in 1895 Dr. Walsh encouraged all present to look beyond the prizes and the distinctions toward the future of the college. He recognised that the college was sadly hampered by the want of suitable accommodation for its students. He did not want to see such developing work hampered by inefficiency and energy wasting. He was anxious that the students be in reasonable comfort while working. He also wanted the public to be aware of the circumstances in which these educational feats were performed. The Freeman's Journal, a few weeks prior to the presentation of prizes, carried an extract which left nobody in any doubt as to the achievements of the college over a two year period. It stated:

> Two years is an exceedingly brief period in the life of an educational institution, but, anyone who impartially examines what has been achieved by St. Mary's in that short time will not be inclined to lightly set limits to its career of future usefulness and success. 16

In the competitive sphere of university examinations, the students had proven their worth. In its first year, it had almost tied with the endowed Cork Queen's College, having acquired nine distinctions as distinct from its rival's ten. Taking the comparison a step further, one finds, that St. Mary's was awarded five honours as compared with the Cork Queen's College's only one. Fifteen distinctions, including two exhibitions were won by its students. St. Mary's secured first place in

English, second in Latin, fourth in French, first in German, and first and third places in Natural Philosophy in the matriculation examinations, all of which spurred the writer in the Freeman's Journal to state that

> This is an all round performance of first class merit and stamps the teaching of the college as unquestionably able. It is worthy of note that in every one of the subjects just set out St. Mary's University College, holds the premier place of the Dublin Ladies' Colleges. Success of this kind is not the outcome of chance. It points to a high order of teaching and an admirable system of work. These qualities are, in fact, characteristic of St. Mary's University College, and are the best guarantee that its brilliant promise will as the years go on, be succeeded by increasingly distinguished achievements. 17

It may be that the writer in Freeman's Journal is expressing his own opinions on the matter, but it would appear that the wording, at least, if not the opinions too, are those of Archbishop Walsh. He frequently used the newspaper as his mouthpiece and, on one occasion at least, discussed the approach he wished the leader writer to take on an issue. It may well be that the approach was also discussed on this occasion. Dr. Walsh always decided on the amount of the proceedings to be published in the newspapers, and the number of reporters attending the prize giving ceremonies.

In 1895, at the end of its second year's functioning, with attendance at lectures becoming more regular and the studies of those attending becoming more systematic and purposeful, the number preparing to do the full course of college studies was constantly growing. Twenty-five students presented themselves that year (the same as in the previous year) for the examinations of the Royal University. Only three failed, while the distinctions achieved increased from 13 honours and one exhibition in 1894, to 14 honours, two exhibitions, one first class scholarship of £40 per annum for three years, and two junior fellowships of two hundred pounds per annum for four years, in 1895. The first scholarship in Modern Literature had been won by Mary Barniville, who was also a winner of an exhibition at the matriculation examinations. The junior fellowship in Modern Literature was won by Katherine Murphy, and that in English and History by Mary Hayden. Miss Hayden had attended the lectures given in the college on the philological portion of the fellowship course, while the remainder of her studies were taken in Alexandra College. Miss Murphy, on the other hand, had been a student of St. Mary's throughout. Mother Patrick was overjoyed at the news and immediately taking pen to paper wrote to Dr. Walsh: "I am happy to say that it has exceeded our expectations and I make no delay in sending the good news."[18] She was delighted, in particular about Katherine Murphy's triumph, as St. Stanislaus had been her teacher all through her courses in the college, and also that "she was competing with two of the most brilliant students of Alexandra College."[19] Mother Patrick felt honoured that Mary Hayden should acknowledge the part played by St. Mary's in gaining her fellowship by having the college name coupled with that of Alexandra College. Mary Barniville's success was hailed as the greatest of the three, because she was the only student in St. Mary's undertaking the B.A. in Modern Literature and was also "strictly one of the students of the college in daily attendance..." and ended up taking honours "... amongst a chosen few."[20] At the prize giving ceremony for 1895, Archbishop Walsh acclaimed all three but more especially

Katherine Murphy as her prize was

> the highest and most honourable, and therefore the most coveted even among the prizes and distinctions that the Royal University had reserved as rewards for the most brilliantly distinguished graduates. 21

He was of the opinion that this success would bring the Dominican nuns much credit as her education had been entrusted entirely to them. Mary Hayden's success was also lauded, and Dr. Walsh admitted that the claim for undivided credit for her success could not be claimed by St. Mary's, as she was more closely connected with Alexandra College. However, she herself wished to give credit to the college as she believed that the lectures given her there by Professor Arnold on Early English Literature and Philology played a vital part in her acquisition of the exhibition. The competition was open, fully and absolutely, to the graduates of the Royal University of not less than two years' standing, and subject to one restriction, that no one person was eligible for a fellowship who was already a fellow or professor in any university or college, such as Trinity College, or the Queen's Colleges. Under such competition were these fellowships won. Mary Barniville's achievement was also complimented by the Archbishop, as were many other successes in the university and intermediate examinations. He now felt satisfied that the college had proven its worth, and was no longer open to the reproach of having failed to provide for Catholic girls the study of the various branches of secular learning up to the highest grades. It had in fact achieved the highest grades and considerable success too. Dr. Walsh was all the more pleased for the success of St. Mary's especially when it was achieved at the expense of

> a system of instruction initiated from end to end by its unnatural ostracism of religion from the place which it is the unalienable right of religion to hold in every system that is worthy of the name education. 22

This strongly-worded rebuke portrays the Archbishop's views on the non-religion based curriculum provided in the Queen's Colleges throughout the country, and is also a declaration of Catholic hierarchy's point of view on the unquestionable right of religion to be central to any system of education. Monsignor Molloy supported this viewpoint and outlined the chief aim of St. Mary's to be

> the association of the ordinary routine of secular educational work with a sound training in the principles, practices, and spirit of the Catholic faith, the authorities are specially pleased to be able to report still further progress.(sic)23

It was during the month of June 1897 that St. Mary's received a most worthwhile boost to its already increasing morale. On the sixteenth of the month, a Colonel Davies visited the college with a view to having his daughters reinstated, on the same terms as he had been paying for them at Alexandra College. Sr. Imelda delayed her reply until she had first contacted Archbishop Walsh. When the girls were in the college previously, a different financial agreement existed but, nevertheless, she was able to inform Dr. Walsh that "our financial affairs will now allow me to meet the Colonel's wishes." The girls' return to St. Mary's was hailed as a great victory and the best advertisement the college could obtain. It is reported that the Misses Davies had acknowledged that their studies had gone backwards from the time of their previous departure. The authorities at St. Mary's were now hoping that this would be the beginning of an exodus of Catholic girl students from Alexandra to their own college.

Because St. Mary's was an unendowed college, no opportunity was missed by the annalist to compare results with the Queen's Colleges, especially if a victory over any one of them was recorded. In 1898, on the list of results of the Royal University the college was placed fourth, with a total of 20 distinctions - 13 first-class and seven second-class - leaving the Queen's College, Galway far behind. This latter college, though receiving an annual endowment of more than ten thousand pounds had no place whatever on the list of distinctions. St. Mary's had its greatest successes in 1898 in the area of Modern Languages. By the end of the college year 1899, it had scored more honours and exhibitions in arts than the Queen's Colleges of Cork and Galway combined. In the summary of results it was now placed third with just the Queen's College, Belfast and the University College Dublin, placed in front of it. However, it had achieved the great goal toward which it had been striving from its beginning, namely, being first of all the women's colleges in Ireland on the results list. Having recorded this noteworthy feat, the annalist stops to ponder the injustices of it all and asks:

> Could the Arts School of Cork and Galway Queen's Colleges survive in any other country in the world as State endowed Institutions after the exposure of their failure which the competition of the Royal University has involved. 24

Although the question is not answered, the anticipated answer lies in the negative. Only one student from the Cork college appears in the honours' list of the Royal University for the year 1898-99. Galway had secured three distinctions, and St. Mary's "the unendowed, handicapped Girl's University College in Merrion Square,"[25] had more than both combined. In the autumn examinations, seven students of St. Mary's were placed on the register of the Royal University as graduates, five distinctions at the degree examinations secured, and also a first class scholarship. The overall success and achievements of St. Mary's led the Annalist to conclude; "Indeed the success of that Institution is a sample of what might be done for education in Ireland even with funds going to waste, were a right use made of them."[26] Archbishop Walsh would have undoubtedly approved of those sentiments. However, the question of financing St.Mary's never really bothered him. Lack of accommodation perturbed him no end. In his speech on prize giving day in 1895, he praised the work in the college, despite it being impeded and hindered by many and various drawbacks, and concluded that the full scale of its success could only be measured and ascertained in the light of these drawbacks. He reminded all present:

> We have to bear in mind that St. Mary's has now but completed the second year of its existence, and that, as yet, it is hampered in its work by the want of suitable accommodation, by the want of a building, in which that work - now rapidly developing work - could be got through without waste of energy and with thorough efficiency, to say nothing of the absence of even moderate comfort for those who are engaged in it. 27

To find suitable and adequate accommodation for such a venture would not be easy. It was not until 1898 that an ideal dwelling to suit their needs was put up for sale. This place was situated on the Marlborough Road, and its name was Muckross Park. It contained four acres of ground, a very fine house and a lease forever. Its price was six thousand pounds with a yearly rent of £20. The community in Merrion Square became aware of this site being for sale and the Prioress, Sr. Imelda, wrote to Archbishop Walsh informing him of the situation. She felt that there was no point in asking Sion Hill to purchase the house, as they were finding it difficult to meet the expense of the rent and taxes for the houses in Blackrock and Merrion Square, which came to six hundred pounds per annum. She was hoping that Dr. Walsh would be disposed toward lending them the purchase money of six thousand pounds and two thousand pounds to build classrooms and a residence house for their boarders. The two hundred and fifty pounds which Sion Hill paid annually for the rent and taxes of St. Mary's was visualized as going towards paying the interest on the loan, the taxes and ground rent of Muckross Park which came to £50 and a college balance of £70 and still have some money remaining. Sr. Imelda pointed out that Sion Hill had not been informed of the matter, pending Dr. Walsh's advice. Within a fortnight we find the Prioress of Sion Hill, Sr. Augustine, writing to the Archbishop informing him of the situation having been requested to do so by Mother Patrick. In the letter, Sr. Augustine stressed that due to their current financial situation, they would not be able to assist in the purchasing of the house on Marlborough Road. The final couple of lines of the letter had a hint of desperation about them. They read: "The community in the Square (St. Mary's) are anxious. I should ask your permission to borrow the money."[28] But, then the correspondence on this topic comes to a close. It can not be ascertained whether this money was lent or not. The next one reads on the issue is the account of its purchase for the use of the community of St. Mary's. The Sion Annalist informs us that Muckross Park, Donnybrook, was purchased in 1900, with a view to providing a permanent house for St. Mary's, which was perforce compelled by its own growing importance, to emigrate to a more permanent and suitable abode. It was situated close to the Morehampton Road, with its entrance on Marlborough Road and secluded in groves, gardens and green meadows as if it were miles outside the city. From a transport point of view, the tramways from the city, Rathmines, Lansdowne Road, and Dalkey all passed within a few minutes walk of the college, which was an important consideration in the acquisition of numbers. Being on the south side of the city, it was making provision for the pupils from south Dublin who wished to avail of it, while, at the same time, extending the Dominican challenge to Alexandra College. Eleanor Butler, one of the first pupils to enter Muckross Park, described her first experience thus:

> I was one of the first pupils at Muckross Park in the foundation year, was witness of the great courage and earnestness with which the founders faced their task. I profited from the chance which they opened for the higher education of women at a time when women's chances of higher education in Ireland were almost nil. 29

However, tremendous advances had been made in the last decade of the nineteenth century in the field of Catholic female education. This can only be judged by the comparison of numbers and money value of all prizes, as divided between Catholic and non-Catholic students. In 1900, the college had its greatest success when it outstripped its rivals, both in the number and values of the prizes awarded them. In 1901, the position was improved still further. While figures for comparison purposes have not always been forthcoming, St. Mary's position, in terms of results, relative to the other colleges affiliated to the Royal University, has been the standard by which their success has partly been judged. These positional figures reveal nothing of the results and prizes themselves. Nevertheless, by using the figures relating to St. Mary's for both these items and the occasional references to other colleges' performances, one can see how St. Mary's progressed in leaps and bounds in a very short space of time. What is of greater significance is that this noteworthy success rate went hand in hand with the advancement in higher education attained through the women's colleges. In the case of Catholic women students, St. Mary's had played, and would continue to play a vital and significant role in this work, thanks to the initiative of Archbishop Walsh and the trust he placed in the Dominican nuns to make a success of it.

As the reputation of St. Mary's grew so the Archbishop faded into the background. The Dominican nuns had his complete trust when it came to the smooth running of the college. He had made his contribution to the higher education of women by setting up and financing this separate Catholic women's college from the outset. Even though the evidence presented to the Robertson Commission by Mary Hayden on behalf of the Dominican nuns supported the concept of co-education (i.e. men and women attending the same lectures) Mother Patrick and her Dominican peers fought to preserve the identity of the college as long as a solution to the university question was not forthcoming. In 1903 the Sion Council decided to transfer the university classes back to Eccles Street as

> Donnybrook had been found an inconvenient distance for the students residing at the north side of the City and the consequence was that the number attending the University classes was much diminished,

> and, in many cases, some of the best students formerly attending St. Mary's went to Stephen's Green, Loreto College, owing to the inconvenient distance. This circumstance lessened considerably our successes. [30]

From being in competition with Alexandra College it now had competition from a fellow Catholic college. Both their lives were shortlived, however. The deathknell was sounded in 1908 when no place could be found for separate women's colleges within the plan for the National University. This great pioneering movement by the Dominican nuns came to rest in the same house which had provided grinds for women taking the examinations of the Royal University, prior to Archbishop Walsh's invitation to provide university education for the women of Ireland.

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BALLITORE QUAKER SCHOOL AND ITS UNIQUE CURRICULUM, 1726 - 1836

Cyril Brannigan

Undoubtedly the most successful of the Quaker private boarding schools in eighteenth and nineteenth century Ireland was that run by three generations of the Shackleton family at Ballitore, Co. Kildare. Ballitore is a small village in south Kildare on the borders of Co. Wicklow, and is about 28 miles from Dublin. During the latter years of the seventeenth century, two Quakers, Barcroft and Strettel, purchased the land and transformed its appearance, so that by the middle of the eighteenth century Ballitore was a thriving Quaker colony. The famous boys' boarding school had been founded in 1726 by Abraham Shackleton, a Yorkshire schoolmaster. It was the only Quaker boarding school in Ireland in the eighteenth century which provided more than an elementary education for its pupils, and it gained a considerable reputation for the teaching of the classics and mathematics. Furthermore, while embodying the traditional classics at the core of the curriculum, Ballitore boarding school was nearly half a century ahead of its time, when in the 1780s it offered modern languages and shorthand as a "conscious preparation for a commercial career".[1]

Ballitore boarding school catered for the educational needs of between 50 and 60 pupils, ranging in age from the extremely young to the fully mature. Among the former were Tom and Sam Eyre, illegitimate sons of Stratford Eyre, the warden of Galway, both of whom entered Ballitore school in 1766. According to Mary Leadbeater, the Quaker authoress and granddaughter of Abraham Shackleton, "Tom Eyre was not long out of petticoats, and Sam still wore them".[2]

Another very young pupil was Aldworth Phaire, the son of a colonel, who entered the school at five years of age in 1777, joined the army in adult life, and died in the West Indies.[3] While the majority of pupils at Ballitore school were between eight and fourteen years of age, there were a number of older students who were generally classified as "parlour-boarders".[4] The latter, for the most part, lived in the same house as the master and family, and attended school with the regular boarders. Typical of the parlour boarders was Robert Baxter from Monaghan who attended Ballitore in 1775 when he was 16 years old,[5] and Bob Bayley, son of the Shackletons' landlord, who attended the school at 17 years of age.[6] The parlour boarders had a considerably more informal relationship with the master than the regular boarders had, and to a certain extent they were considered as part of the family. Among the oldest scholars to attend Ballitore school was Thomas Wray, who was about 27 years old, and who came "to study such branches of mathematics as would qualify him for the army".[7]

While Ballitore boarding school was mainly a school for Quakers, it included many non-Quakers on its roll. The most illustrious of the latter were undoubtedly, Edmund Burke, who came to Ballitore with his elder brother Garrett and his younger brother Richard in 1741,[8] and the famous United Irishman, James Napper Tandy, who attended the school in 1749. Other famous past pupils of the school were Richard Brocklesby, later to become physician to Dr. Johnson, and Paul Cardinal Cullen who entered the new day school under James White in 1812.

Ballitore boarding school catered mainly for the educational needs of affluent Quakers whose only other alternative was to attend Quaker boarding schools in England. Although there were 21 boarding schools in existence for Quakers in England by 1760,[9] Irish Quakers had failed to establish a single boarding school, with the exception of the privately run Ballitore school, up to 1764.

Despite being a highly respected Quaker boarding school, often visited by members of the Society of Friends, Ballitore was, nevertheless, untypical of late eighteenth and early nineteenth century Irish Quaker schools. It was not under the control of the Leinster provincial meeting, and its acceptance of non-Quakers on its roll was an innovation frowned upon by many traditional Quakers who saw Quaker education as an extremely exclusive and guarded affair. With its emphasis on modern languages, especially French, Ballitore boarding school, in the late eighteenth century, was clearly ahead of other Irish Quaker schools, which provided little more than an elementary education. Indeed, it can be justly claimed that Ballitore was the first Quaker 'secondary' school in Ireland. While the Quaker provincial schools (established in the late eighteenth century) taught an extremely limited curriculum, and dispensed with their pupils at 14 years of age, Ballitore boarding school prepared its Quaker pupils for a career in business, and prepared many non-Quakers for entrance to the University. Edmund Burke, for instance, entered Trinity College, Dublin from Ballitore in 1744,[10] and maintained a life long friendship with Richard Shackleton, son of the founder of the school. Ballitore was also untypical of other contemporary Quaker schools in the sense that there was a considerable cosmopolitan element in residence there. Pupils came to the school from places as far afield as Jamaica, Norway and France. Mary

Leadbeater records that "many West Indians were sent to the school",[11] and in reference to the French influence there she related:

> Several French men and boys came here in the time of my grandfather to learn English, and they left the name of the "French Room" to a large apartment in which they slept. 12

The influence of different cultures at Ballitore must have contributed significantly to the much broader educational milieu in evidence at the school, a milieu which contrasted sharply with the rather narrow learning environment provided by the provincial boarding schools.

On Abraham Shackleton's retirement in 1756, the mastership of Ballitore school passed to his son Richard. In 1765 the latter was approached with the offer of becoming headmaster of a projected new provincial school, exclusively for Quaker boys. Richard turned down the offer by stating that:

> I think it is some advantage to us to have children of others educated by persons of our persuasion, who have the welfare of our Society at heart. 13

While approving of a "select boarding school for Friends", Richard felt that his own talent lay in giving a virtuous education, and conscientious care to others, who then became dispersed among those not acquainted with the principles of the Society of Friends.[14]

The Quaker boys' boarding school at Ballitore was probably administered on less formal lines than the three provincial schools at Mountmellick, Lisburn and Newtown, Waterford. Because Ballitore school was independently run by the Shackleton family, and was not under the control of the provincial, or yearly meetings, there was no school committee reporting to the provincial meeting. Consequently there is very little evidence available to historians on the day to day organisation of Ballitore. We do know, however, because the school also accepted non-Quaker pupils, that a Protestant Episcopalian usher was always employed there, whose duty it was to hear the catechism of his co-religionists who were on the rolls, and to accompany them to divine service on Sundays at Timolin.[15] The senior household staff at Ballitore in the eighteenth and early nineteenth centuries were mostly Quakers, and the "inferior servants", as Mary Leadbeater calls them, were generally Roman Catholics.[16] There was always a steward employed at Ballitore and one of his many tasks was to bring back boys who had run away from the school. One particularly successful steward was a Quaker named James McConnaughty, of whom Mary Leadbeater says:

> If a boy ran away from school, James was dispatched after him, and such was his success that the boys gave him the name of "the blood hound". [17]

Apart from the steward, there was generally an elderly man employed at Ballitore to carry out lighter duties of a miscellaneous kind. One such functionary was an old ex-soldier named John Buckley, whose duties were "to assist in cleaning the shoes and knives, to cut the bread, attend the boys' table, and announce at the schoolroom door when the meals were ready".[18] Overall, it would appear that greater flexibility was employed in the administration and day to day running of Ballitore school than was the case in the provincial schools, where the duties of the staff were legislated for in the most minute detail, leaving almost nothing to human initiative.

The curriculum at Ballitore was a remarkable synthesis of two distinct approaches to education. The traditional liberal curriculum of Greek, Latin and mathematics, on the one hand, was balanced by business oriented courses in book-keeping, stenography and modern languages on the other.

The Classics: The Classics were very much at the core of the curriculum at Ballitore from the foundation of the school in 1726. As a Quaker schoolmaster in eighteenth century Ireland, Abraham Shackleton, the founder of Ballitore school was exceptionally well qualified. Although he did not possess a university degree, since universities were closed to dissenters in the early eighteenth century, he nevertheless was fluent in Latin and had a sound knowledge of Greek and mathematics. At a time when most Quaker schoolmasters in Ireland taught little more than the 3 Rs, and indeed when some like Samuel Fuller or John Chambers of the Dublin Quaker school were unable to teach satisfactorily even these basic skills, Abraham Shackleton was preparing Quaker pupils for careers in business and some non-Quakers for University entrance. His skill as a superb teacher of the classics is well brought out in the remarkable tribute paid to him by his most famous and successful pupil, Edmund Burke, who entered Trinity College, Dublin from Ballitore in 1744. Burke had just successfully undergone an entrance examination at Trinity, in which he was closely examined, both by a senior lecturer and by a Fellow of the College in the works of Horace, Virgil and Homer. In a letter to Abraham Shackleton's son Richard, Edmund Burke said:

> I cannot express, nor have I the knack of doing it, how much I am obliged to your father for the extraordinary pains and care he has taken with me, so as to merit the commendation of my tutor, and all I can do is to behave myself so as not to bring scandal upon him or his school. 19

The classical curriculum at Ballitore continued under Abraham's son Richard, who in the 1740s took the unprecedented step for an Irish Quaker of attending Trinity College, Dublin for the purpose of studying Hebrew. Richard Shackleton was a lifelong friend of Edmund Burke, and the latter sent all his publications to Ballitore.[20] Indeed, their close friendship was in a large measure due to their love of the classics, which both men developed as pupils at Ballitore, and which they shared throughout their lives. In a letter to his daughter Margaret Grubb at Clonmel in 1776, Richard Shackleton impressed upon her the importance of Latin in the education of her son. Indeed, this remarkable letter throws considerable light on the importance of Latin on the curriculum at Ballitore, and it is an eloquent rejection of the narrow utilitarianism that coloured the thinking of many contemporary Quakers. Richard Shackleton admits in this important letter that Latin is of little use to one in preparing for a job. Neither will it make money nor assist one in foreign travel. What is important, however, is that Latin is immeasurably valuable both as a linguistic base and as a cultural grace, and these two latter qualities are, for the Quaker master, sufficient reason to recommend the inclusion of Latin on the curriculum of Quaker schools.

In 1779 Richard Shackleton relinquished the mastership of Ballitore school to his son Abraham, under whose headship classical studies continued to play an important role. In 1789, however, the classical curriculum was considerably restricted, mainly due to scruples felt by the master concerning the teaching of pagan authors. When James White, a son-in-law of Abraham Shackleton, became master of Ballitore school in 1806, the classical side of the curriculum was again given considerable emphasis. Evidence of what texts were studied at Ballitore under James White can be found in letters written by some of the pupils at the school. A typical reference is that of Robert J. Lecky who in 1813 wrote:

> My dear Father ... I am reading Phaedros in Latin, Roman History in French. I have got the verbs in the Greek Grammar. 21

From the evidence available in the Quaker archives, it would seem that Ballitore boarding school provided a remarkably wide curriculum in the classics right up to its closure in 1836.

Mathematics: While the mathematics taught in most Irish Quaker schools did not go beyond the teaching of practical arithmetic, until well into the nineteenth century, Ballitore school was, once again, a notable exception. This famous school also provided extensive instruction in algebra and geometry, and was referred to in advertisements as "Classical and Mathematical". Robert Lecky, writing from Ballitore in 1813, recorded, "I am in the fourth problem of Mensuration, simple equations in Algebra, and the third book of Euclid".[22] Even this, however, did not exhaust the mathematics curriculum at Ballitore, because shortly after, in reply to this letter, Robert's father said:

> He (the master) mentions his wish that thou should learn Trigonometry, which I should by all means desire including Spherics, and I do not expect that you will experience any considerable difficulty in the attainment. 23

It is some indication how far Ballitore was ahead of other Irish Quaker schools in regards to its mathematics curriculum when one realises that two of the subjects referred to by Robert Lecky above, namely algebra and mensuration, did not become part of the curriculum of Leinster provincial school, Mountmellick, until 1853.[24]

Commercial Subjects: Because many Quaker pupils were destined for careers in business, the curricula in their schools tended to include a number of commercial subjects. In this regard Ballitore was no exception. When founding the school in 1726, Abraham Shackleton stated in an advertisement in the public press that "He proposes to fit the youth for business, and instructing them in polite literature".[25] The first part of this advertisement was obviously in deference to parents who intended their sons for trading pursuits, and in order to facilitate such pupils, courses in book-keeping and shorthand were taught. There is preserved in the Quaker archives, Dublin, an original copy of a shorthand book used by Thomas Pim at Ballitore in 1786. This interesting manuscript, written in the most exquisite calligraphy, is a good example of how the religious principles of the Society of Friends permeated even this most utilitarian area of the curriculum. The contents of the manuscript indicate that pupils at Ballitore were expected to learn their shorthand by studying specially translated versions of the Lord's Prayer, the Psalms, and highly didactic material on Virtue, Industry and Discretion.[26]

By including commercial subjects on the curriculum, Ballitore school, together with the provincial boarding schools, anticipated by quite a distance of time the recommendations of the 1855 Endowed Schools Commissioners Report, which condemned existing Protestant schools on the grounds of following an exclusively classical curriculum, when in fact, most of the pupils were destined for careers in business.[27]

French: Quaker puritanism in the eighteenth and nineteenth centuries strongly influenced the attitude of the Society of Friends towards the teaching of modern languages, especially French, in their schools. As in the case of Latin authors, many Quakers believed that Franch literature had a tendency to "corrupt our youth", and hence, they felt that their children must be protected, in every possible way, from such baneful influences. The Shackletons of Ballitore, however, were more far seeing in their attitude to learning in general, and this broader outlook can be seen in Richard Shackleton's advice concerning his grandson's study of the French language. In a letter already referred to on the subject of Latin and written in 1776, Richard Shackleton says of French:

> I felicitate him on his beginning to learn French, and wish him good speed in it. I observe many get a little superficial smattering in that language and soon lose it. I wish it may not be the case with Abraham. 28

Further on in the letter the writer says that French is "essential to accomplish the gentleman, to accommodate the traveller, and it is the most universal vehicle of verbal communication".[29] Not only was the assumption that French should be necessarily included in a child's education a modification of earlier Quaker practice, but it was also noteworthy in the Irish educational context of that time. Indeed, French was part of the curriculum at Ballitore in the late eighteenth century, and French influence was present in the school from an even earlier period. By the early decades of the nineteenth century Ballitore school became almost as renowned for its teaching of French as it was for the classics and mathematics. This enhanced reputation was acquired during the mastership of James White, when the latter employed the teaching services of Theodore Suliot, a native Parisian and an M.A. graduate of Glasgow University.[30]

Although Ballitore Quaker school accepted non-Quakers as pupils, it is extremely unlikely that Catholic children did attend when it was exclusively a boarding school. The vast majority of names on the Ballitore school list would suggest that few, if any, were Catholics. If some Catholics did attend, they were in all probability, children of middle and upper class parents, who could afford to pay the substantial fees and whose entry would have been much conditioned by lack of alternatives.[31] From 1806, however, Ballitore school also accepted day pupils and Catholics began to attend. Eight members of the family of Paul Cardinal Cullen attended the day school between 1806 and 1826, when the school was under the mastership of James White, but by this time the day school was known as the Lancastrian Village School, and was under the auspices of the Kildare Place Society.

Largely because of the influence of the famous boys' boarding school, Ballitore became known, in the late eighteenth and early nineteenth centuries, as the "Athens of Ireland".[32] The school was the most important, and by far the most successful of all eighteenth century Irish Quaker boarding schools, and was only temporarily closed in 1803 because of scruples felt by the grandson Abraham Shackleton Jr., about reading and teaching classical authors.[33] The school was reopened in 1806 under James White. In the 1830s, however, the number of pupils declined at Ballitore possibly due to the advancing years of James White, but more probably due to the more popular attraction for Quaker pupils of the Munster provincial school at Newtown, Waterford, which had opened its doors in 1798, and which was rapidly achieving considerable prestige in Quaker circles in the early nineteenth century.[34] The Quaker boys' boarding school at Ballitore, Co. Kildare, finally closed its doors in 1836, after more than a century in operation.

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SOME DEVELOPMENTS IN INFANT EDUCATION IN THE EARLY TWENTIETH CENTURY

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Towards the end of the nineteenth century, in Ireland, it became evident to educationalists that the programme in primary schools was inappropriate to meet the needs of infant pupils. An emphasis on rote-learning in overcrowded classrooms was the accepted practice. In many rural schools the interests of the infant were seldom, if ever, the primary concern of the teacher. This was mainly due to the inadequacy of the system of infant education in Ireland, together with the lack of training of the teachers, the ages of the children in the large classes coupled with the particularly bad attendance.

In 1897 the Commission on Manual and Practical Instruction had been set up to carry out wide-ranging enquiries into contemporary educational issues. The more immediate consequences of the work of this Commission were to be seen in the changes effected in the curriculum of the national schools. These modifications were outlined in the Rules and Regulations for National Schools and came into force in 1898. The presence of ten members of the National Board on the Commission meant that its findings would influence national educational practice as early as the autumn of that year.

One of the most striking innovations envisaged by the Programme of 1898, was the introduction of Kindergarten occupations for all pupils in Organised Infants' Schools or Infant Departments.[1] It was stated that in the case of schools adopting a Kindergarten approach simultaneous examinations would be used. It was stressed however, that no results-fees would be allowed for the answering in infant classes if the inspector reported that no suitable exercises were provided for the infant pupils.[2]

Inspectors welcomed these recommendations. Their reports for the years 1898-99 spoke favourably of the educational benefits to be derived from active participation in Kindergarten activities. From the mid 1890s, in their annual reports, the inspectors focussed their complaints on the lack of practical training offered to young children in their early years at school. A circular issued to inspectors in May 1896 advised that at least two "suitable exercises" should be provided for young children, if teachers were to merit results-fees. Such a statement allowed for ambiguous interpretation however, and this added an unfortunate note of uncertainty to the situation. While recommendations were offered by inspectors, the consensus of opinion among them, was that there was no incentive to educate the younger classes, except in infant schools and departments, since only here were exercises "necessary to earn a pass" and therefore generally taught.

The Programme for Infants laid down in 1898 was highly structured and most specific. The section on Kindergarten practice was almost identical to that which was outlined in a previous programme published in 1888, and significantly it demanded specific exercises and set routines.

Although certificates of competence to teach Kindergarten could be obtained in the training colleges since 1885, the Commissioners on Manual and Practical Instruction were alarmed at the limited number of students who obtained these awards. In the Ad Interim Report published on December 13, 1898, by the Commissioners of National Education on the Belmore Commission, it was recommended that the Kindergarten system should be implemented "in any ordinary National School" under a properly qualified teacher, even though there may not be a specially organised infant department in the school. Furthermore, it was suggested that any teacher who had obtained a certificate of proficiency in a subject should be required to teach that subject in his or her respective school.[3]

The Commissioners looked to the training colleges to provide the students with the motivation to familiarise themselves with the new approach to teaching. It was suggested that "certain modifications" should be made to the programme for these colleges, with special attention being given to the principles of the Kindergarten system for both male and female teachers. The inspectors' reports indicated that they were becoming aware of Kindergarten as a highly specialised subject also, and they called for the employment of fully qualified infant teachers. As Dr. Bateman of the Limerick circuit pointed out:

> ... for an infant school to be a complete success... it is absolutely necessary that the staff be qualified to give instruction in Kindergarten, Singing and Drill and in future it would be well to make these qualifications indispensable. 4

At their meeting in April, 1898, the Commissioners of National Education considered and adopted the proposed recommendation by Mr. Dowling, the Chief of Inspection, that the practical test in Kindergarten be conducted by the Head Inspectors.

Before the Belmore Commission in 1897, both Mr.Joyce in his capacity as Principal of the training college in Marlborough Street, and Miss Daly, the Professor of

Kindergarten in the Baggot Street College, declared that they had accepted responsibility for examining the practical aspects of the subject in their respective colleges. The members of the inspectorate were not satisfied with this procedure, so from the summer examinations of July 1898, two inspectors examined the students in Kindergarten practice.

In September 1898, a new programme for the Training Colleges was introduced which incorporated some of the new subjects recommended by the Commission. For women only, Kindergarten was henceforth to become a compulsory subject. To obtain a certificate of competency to teach Kindergarten each female student was expected to

> ... exhibit a clear comprehension of the principles modifying the system of Gifts and the relation of the Gifts to one another. 5

Furthermore each candidate was required to obtain a mark of 40 per cent in a written test and 60 per cent in the practical examination. This shift of emphasis towards Kindergarten indicates that the main thrust of the new Course was more on the development of the student's own understanding of certain principles from which practice was derived, and the integration of this theoretical dogma with successful classroom practice. The new programme for Training Colleges was designed to reflect the changing curriculum of National Schools. It was, no doubt, envisaged by the National Board, that teachers trained in the spirit of the Belmore Commission and enthused with the new philosophy would attempt to transmit the underlying principles, through related practices to willing and receptive classes of children.

Revised Programme of 1900

The introduction of the Revised Programme heralded a whole new concept in Irish educational practice. A preliminary reading of the document would give the impression that the new primary school curriculum was merely an extension and improvement of the content and techniques outlined in the old programme. However, this would be a serious underestimation of the reality. Here was a radical document in which was proposed a whole new approach to national education in Ireland. The rather severe tone of the introduction of the circular may have been criticised, but the approach advocated in its statements encouraged an unprecedented level of flexibility and moderation.

A new curriculum was now being presented wherein the 3 R's would remain as the core of a programme which would substitute the heuristic method of instruction for the didactic. The application of the heuristic approach to teaching was in keeping with the progressive philosophy of education, which recognised the educational benefit derived from a study of practical subjects. Attention would henceforth be given to the practical elements of the different subjects while, at the same time, new subjects would be introduced.

The prescribed occupations for infant classes outlined in the Revised Programme were based on the Froebelian idea of Kindergarten activities. These included simple exercises in stick-laying, threading coloured beads, and performing patterns for embroidery. As outlined in the Programme of 1898, Frobel's First, Second, Third and Fourth Gifts were to be introduced while Drawing, Singing, School Discipline and Physical Drill, Cookery, Laundry Work and Needlework were also placed on the syllabus for infant classes. The English programme included the reading of sections from the First Book, copying letters of the alphabet, and spelling words of two letters. In Arithmetic the numbers one to ten were to be explored using concrete materials on slates or paper.

It will be recalled that in 1898, Kindergarten methods for results-fees, could only be performed in Organised Infants' Schools and Infant Departments by teachers holding certificates in this subject. Now this approach was being extended to all national schools where there was a teacher qualified to give instruction in it. At the same time, teachers in ordinary national schools were encouraged to adapt the programme to suit their special circumstances.[6]

With regard to methodology the Revised Programme did not recommend an overall approach. Specific procedures were suggested however, for the teaching of individual subjects. This attitude of the curriculum planners was much in line with the progressive views that had begun to find favour in official circles in England and on the Continent. It had found its most influential expression in the doctrine of Froebel which called not so much for the use of specific exercises, which offered a structured approach to teaching and learning, but rather in the recommendations that courses of learning ought to be arranged to suit local needs.

Froebelians argued that their philosophy was applicable to all levels of education. The Revised Programme treated Manual Instruction therefore as a continuation of Kindergarten principles. In this way it stressed that Manual Instruction must not be regarded as a preparation for industrial training, rather it was justified largely on its educational merit.

The Revised Programme was modelled therefore on the principles underlying good Froebelian practice. This approach to teaching, combining the best of formal with the benefits of informal, is not an easy approach for teachers to master. Less than half the teaching force had been trained under the old system and, consequently, the majority of the teaching body was to encounter great difficulties with attempting to implement the Revised Scheme.

The Commissioners of National Education were aware of the difficulties which teachers would encounter as they attempted to introduce this revolutionary programme especially in one-teacher schools. Consequently, in 1901 a new grade of teacher called manual instructress was employed in small mixed schools under a male teacher. Her role was to take charge of the junior pupils and also to carry out the functions of a teacher of Kindergarten, Needlework and Manual Instruction.[7] The category of Junior Assistant Mistress was introduced in 1905. This new class of teacher was employed in mixed schools, under a master, for the purpose of educating "the children of very tender years". In 1906, all schools with an average attendance of between 35 and 50 were granted permission to appoint junior assistant mistresses.

Teachers did not accept the new infant programme of 1900 favourably. An article published in the Irish Teachers' Journal of September 1900 severely criticised the wider and more progressive curriculum being presented to infant classes. It was argued that much of the success of many schools had depended on the elementary nature of the infants' programme whereby "a great deal of time was saved to be devoted to the higher classes".

When one recalls the programme which was laid out for infant classes under the results-system, this new syllabus made many and varied demands upon the teachers' expertise. Under the results-system infant pupils were merely required to read and spell words from the First and Second Book to qualify for result awards. The new scheme added greatly to these requirements. In September 1900 the Irish Teachers' Journal published a lengthy article on the infant programme declaring that in addition to tasks of the old programme infants were:

> ... required to write and cypher, to perform exercises in the first four Kindergarten gifts, to draw lines on chequered slates with very little rubbing out. They must sing sweetly any three approved school songs. What an advance in the time when to cry was more natural to the infant! They must understand babies drill and good manners must be foremost among their accomplishments. Experimental science which was hitherto not obligatory on their teachers must now form part of the education of every well-conducted infant. In addition to all these branches of knowledge if the infant is so unfortunate as to be a girl she has a well-defined and fairly extensive programme in needlework, and cookery and laundry as well. [8]

With the publication of the Revised Programme of 1900 we notice a complete shift of emphasis towards infant education. Infant training was placed at the core of the curriculum, and school life promised to be an enlightening period where children learned largely through play. In practice, however, the future of the young pupils was not as progressive as anticipated by the Commission of 1897. The reports of the inspectors spoke of many teachers attempting to introduce the Kindergarten system into their schools, only to find that their enthusiasm was dampened by their lack of expertise, and the unavailability of materials and resources so necessary for a successful inplementation of the revolutionary programme.

The Dale Report of 1904[9] offered some very descriptive information on the situation four years after the introduction of the Revised Programme of 1900. It took a broad view of the trends within the system and complained that the methods of instruction, especially in the principal subjects common to both the old and the new curriculum, had remained in almost all schools unchanged in essential aspects notwithstanding the recommendations. In his report Mr. Dale incorporated some strong criticism of the system whereby a large number of infant boys were being educated by male teachers. He believed that a man, both in training and temperament was unsuited to infant education, and he recommended that their education should be conducted by ladies. Furthermore, he saw this as a contributory factor towards the multiplication of small schools in Ireland and he suggested that, where feasible, steps should be taken to withdraw grants from unnecessary schools, and that neighbouring boys' and girls' schools where the averages were low, should be amalgamated.

The Board took steps to implement Mr. Dale's recommendations without delay, and four modified programmes and a new bilingual programme were issued in 1904. A greater emphasis was placed on infant training in the schools and an Organiser of Kindergarten was appointed as early as 1903 and by 1912 the number of such organisers had increased to six. These advisors combined the work of visiting schools with that of conducting courses of four weeks duration wherein they attempted to instruct junior assistant mistresses and teachers along the lines outlined in the infant programme.

The Board contemplated the problem of reconciling Mr. Dale's recommendation of compulsory infant training for female teachers, with the reality of the system of education then existing. As a result the annual revision of the rules for the operation of the national system, published early in 1905, contained as Rule 127(b), the provision that boys under eight years of age were ineligible for enrolment in a boys' school where there was not an assistant mistress, unless there was no suitable school under a mistress in the locality. What to Mr. Dale, seemed like an important educational innovation which attempted to improve infant training in Ireland, resulted in a major conflict between Church authorities, teachers and managers against the National Board and the Treasury. According to O'Connell, teachers, managers and general public also, regarded Rule 127(b) as part of a well calculated scheme organised by the Treasury to reduce the teaching force in Ireland. He exclaimed that it was doubtful if any other rule introduced by the National Board during the ninety years of its existence caused "such a storm of opposition" from teachers, managers and the public press as did Rule 127(b).[10]

The conflict went deeper than a quarrel over rules and regulations; to the Church authorities it was an attack on the practice of maintaining two separate Catholic schools side by side, for boys and girls respectively, in districts where neither school could expect an average attendance large enough to justify more than one teacher. While the clergy feared that larger schools might facilitate encroachment by bureaucratic central authorities upon managerial prerogatives, they opposed co-education also.

This amalgamation policy ran counter to the interests of the teachers because it meant a decrease in the number of principalships, while their chance of promotion to a higher grade was obviously endangered. Teachers, managers and the public saw this rule as a method of curbing finances by the Treasury. Furthermore, for the first time a woman could be appointed as an assistant in a boys' school, and only female teachers would be recognised as teachers of all schools under 19 average attendances or of mixed schools. Ironically neither the Hierarchy nor the managers or teachers attacked this rule on educational grounds.

Despite these obstacles, from 1900-1920 infant work predominated the reports of the Inspectors and Kindergarten Organisers as they travelled throughout the country. Their records show an awareness on the part of the inspectors of the great promise of Kindergarten and infant training. Mr. Semple of the Athlone circuit illustrated this point thus:

> In former days teachers found much difficulty in correcting in the higher classes habits of inattention and idleness which were the inevitable outcome of want of suitable occupation in the infants' class. 11

In her report for 1912-13 Miss Austin concluded that the teachers "were waking up to the importance of giving attention to infants". This she attributed to:

> A marked improvement in the attitude of the public towards this branch of school-work and the necessity for a special suitable training for juniors is now generally conceded. 12

The Kindergarten organisers summed up what they regarded as the three great drawbacks to the spread of Froebelian practice throughout the schools of Ireland:

1. Lack of space for the infants,
2. Unsuitable desks,
3. Inadequate equipment.[13]

A more favourably disposed Resident Commissioner might have facilitated a greater degree of implementation, but the necessary financial investment was not forthcoming, while Church authorities maintained their high degree of control, a factor which certainly did not meet with

Starkie's approval or that of the Treasury. The latter had access to the necessary funds and could have effected a situation in which the Kindergarten ideal flourished, but the antipathy to Church control precluded this.

The revolutionary programme of 1900, however, was not framed specifically for the conditions then existing, but rather one which could be achieved as conditions became more favourable. As one of the Chief Inspectors, Mr. Dowling, pointed out in his report on the implementation of the new programme:

> ... educational reforms seem, from the experience of the past, to be essentially of slow growth. Froebel, whose Kindergarten principles we are now endeavouring to propagate, died half a century ago. It took over twenty years to discover and remove the evils of the results-system. It would therefore be unreasonable to expect much, as yet from the latest reforms inaugurated in 1900. [14]

Given the intrinsically slow growth of curriculum reform then, in 1900 prudence would have suggested a gradual approach, and an attempt to train the teachers in Kindergarten methods, and to win them over to the value of the system of supplying the necessary equipment and pedagogical aids. But with characteristic haste, the National Board sought improvement without providing the necessary resources or improving the prevailing conditions in the schools. Nevertheless, the first twenty years of the twentieth century witnessed a revolution in the methods of instruction employed in infant training. Recognition of the need for infant education had been established. Steps had been taken by the training colleges, and the Kindergarten advisors, to train teachers and junior assistant mistresses in the art of Kindergarten organisation as outlined by Froebel and Dewey, and modified to suit Irish conditions. Regrettably this newfound enthusiasm was not to be encouraged by the Irish Free State, following independence.

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THE ATTEMPT BY THE DEPARTMENT OF DEFENCE TO INTRODUCE THE SOKOL SYSTEM OF PHYSICAL EDUCATION INTO IRISH SCHOOLS IN THE 1930s

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A change of government in the Irish Free State, in 1932, brought Fianna Fail to power for the first time, and between 1932 and 1939 there were a number of developments which seemed to indicate that physical education was going to be promoted to a central position in the programmes offered in primary, secondary and vocational schools. Since 1924 in the case of secondary schools and 1926 in the case of primary schools, physical education was prescribed as an optional subject rather than as a compulsory subject. It now appeared as if this situation was about to be changed. There were also indications that it was going to be a high status subject in the programmes to be offered in the newly established vocational schools. This paper concentrates on one development in this direction, namely, the attempt by the Irish Army to introduce the Czechoslovakian or Sokol System of Physical Education into Irish schools.

During the latter years of the 1920s and into the early 1930s the State began to show a certain amount of interest in the development of physical education. In the preliminary to the Vocational Education Act 1930, the following clause was included:

> For the purpose of this Act, the expression "technical education" means education pertaining to trades, manufactures, commerce, and other industrial pursuits ... and also includes physical training. 1

Some Dail deputies were also beginning to press the matter. On 2 November 1932, Deputy Mulcahy of Clann na nGael, stated that he was concerned that there was no systematic arrangement for the general physical training of the children of the nation.[2] Then, in the Department of Education's report for 1932-33 the following statement appeared:

> ... many of the young (primary) teachers have not achieved a proper sense of the value of a good course in physical training, and the teaching of the subject in the schools has suffered accordingly. [3]

The report went on to state that arrangements were being made to have an excensive course in physical training given in the teacher training colleges. These courses were to be given by army instructors. The stated objective was that young teachers would commence their career with a sense of the importance of physical fitness to the general health and education of children. It was also pointed out that a part-time, inservice course in physical education had been held during a two week period in 1933 for teachers in the new vocational schools. This, presumably, was to ensure that the physical training clause in the Vocational Education Act could be implemented. In the debate on the education estimates in the Dail in 1934, the Minister for Education stated that he was pleased that these and similar courses for primary teachers were being conducted and that they were likely to continue. He also pointed out that these courses were being conducted by the army authorities.

The army's involvement with the provision of physical education in Saorstat Eireann began with the Army School of Physical Instruction founded at Keane Barracks, Dublin, in 1922. The school was made up of several elements which catered for instruction in the different aspects of military training. One of these was based at the gymnasium which was inherited from the British army, and in which male physical training instructors were trained. In 1922 this establishment catered for the physical training and preparation of physical training instructors for the newly formed Irish army. It came under the directional control of the Directorate of Training in the School of Physical Culture in 1930.

The major system used in the army's School of Physical Culture at this time was the Swedish or Ling System, with modifications to suit the Irish army. As well as training physical training instructors the School also prepared officers and other ranks for various certificates in such activities as swimming, life-saving, boxing, and gymnastics, and the course involved theoretical subject matter including anatomy and physiology.[4]

On 10 May 1933, Colonel McCorley wrote to the Department of External Affairs, asking that information be gathered and forwarded to the army relating to systems of physical training in Germany, Czechoslovakia, France, and Sweden, and to investigate the possibility of getting instructors from these countries to come to Ireland.[5] On 4 May 1933, Commandant S. O'Sullivan wrote to the Chief of Staff, telling him that he had, on Colonel McCorley's orders, interviewed the Minister for Education on how the Department of Defence might be able to co-operate with the education authorities on the matter of physical training.[6] The Minister and the representatives of the various branches in the Department of Education were in general agreement with the army's offer to make gymnasia and instructors available in the major cities in order that summer courses could be conducted for teachers.[7]

Thus were born the courses which are mentioned in the Department of Education's report for 1932-33.

Over the next few months the Department of External Affairs received and forwarded to the army the requested information on physical training in other countries. This included information from Germany, Sweden, and Czechoslovakia. On 14 August 1933, Major General Brennan, the Army Chief of Staff, stated that the army was backward in its system of physical training. He advised the setting up of one good gymnasium and the appointment of a Czech instructor. He went on as follows:

> This, in my opinion would, to say the very least, give a good start and enable us to cope with the demands which will be made on us later on by the Volunteer forces and the Department of Education. 8

He went on to recommend the selection of groups of young men, specially recruited, who, when discharged, would be of assistance in introducing the new system to the various civilian clubs and institutions.

It has not been found possible to establish why it was decided that the Sokol System was the one selected by the Irish army but the Minister for Defence wrote to the Minister for Finance asking that the expenses of a Sokol instructor be met.[9] The latter agreed to this request pending receipt of particulars on the appointment of the instructor and as long as the sum sought did not exceed five hundred pounds. In June 1934, an announcement by the High Command of the Irish army appeared in the Irish Times.[10] It stated that plans were completed for instruction in the Sokol System of physical education as used in Czechoslovakia and that an arrangement had been arrived at with the Czechoslovakian government for the secondment of a Sokol instructor, Lieutenant Tichy, to the staff of the Army School of Physical Culture. It was also stated that the Free State Army Chief of Staff, Major General Brennan, had made arrangements with the Czechoslovakian government through the Consul in Dublin, Major P. Ruzicka, for officers to be sent to Czechoslovakia to see the system in operation.[11]

Dr. Miroslav Tyrs (1884-1932), Professor of Art History at Charles University in Prague, was the creator of the Sokol or Falcon idea and the founder of the Sokol System of Physical Training. His desire to free the Czech nation from the kingdom of the Hapsburgs induced him to seek a suitable way for the physical and moral development of the nation. The model for this he discovered in ancient Greece. Dr. Tyrs came to the conclusion that physical training can make a small nation able to withstand the attacks of more powerful peoples. He considered freedom to be humanity's greatest possession and that every nation should be prepared to fight for its freedom. He argued that if a citizen is to defend his nation he must be physically and mentally well-equipped, healthy and strong, disciplined and courageous. This whole view of the nation was incorporated by Tyrs into the ideological base of the Sokol Movement.

Tyrs' system of physical training covered all gymnastic exercises known in his time. He divided these into groups:

1. the exercises where no help of another person is needed and no apparatus is used.
2. the apparatus gymnastics.
3. the exercises where the help of another exercising person is needed.
4. combative exercises.

Gymnasts employed such apparatus as the parallel bars, the horse and beam, and the vaulting box. They engaged in athletics, fencing, wrestling, and mass drill, the latter as an expression of the nation's defensive capabilities. During the 1880s women's gymnastics included a free and artistic combination of exercises performed to music, giving stress to graceful movement.

The most joyous manifestations of the Sokol movement were the All-Sokol Festivals. By the 1930s the Sokol Festival arena was 300 by 200 metres, with seating to accommodate 250,000 spectators and dressing rooms for 150,000 gymnasts.

An important coordinating feature of this system was that the compulsory and voluntary engagement in sport and physical education was supervised by the same people: school physical education was taught by persons who were also Sokol instructors. This coordinating function led to a coherence in the content and teaching methods of school and college physical education, and therefore to a uniform basis for both compulsory and voluntary physical culture.

It appears as if the Irish army were anxious to establish a similar system in Ireland. When Tichy came to Ireland he met with Colonel F. McCauley, Director of Training, and Captain J.J. Hogan, O.C. at the School of Physical Culture, and he joined the staff of the school. He proceeded to introduce the Sokol System and conduct a series of specialised courses for the army's physical training instructors. He also prepared manuals on the system. He continued this work through 1935, and in 1936 he returned home.

When Tichy arrived in Ireland it was announced that the Sokol System was likely to be introduced into the schools. The Irish Independent reported as follows:

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> For some time past the Department of Defence has been assisting the Department of Education in the training of P.T. instructors for the schools, and as soon as the new system has been firmly installed in the army it is hoped to extend it to the schools and colleges and to civilian gymnastic organisations. 12

A step was taken in this direction when Tichy had schemes entitled Education for Health and Scientific Recreation for National Development prepared by the office of the Director of Training in the Department of Defence.[13] The first of these schemes began with the following words:

> It should be the responsibility of the Minister for Health, in cooperation with the Minister for Education, to secure for his country a state of physical fitness and to ensure its maintenance during school life. 14

It was stated that this can only be achieved if a number of conditions are met; gymnastic teachers should be trained, schools should have gymnasia and recreation spaces, and daily lessons of 45 minutes duration should be given to all between six and sixteen years of age. Along with this, it was stated that only the State Gymnastic Establishment literature be allowed to be published, that a voluntary system of physical education be available for all over sixteen years of age, and that all these recommendations be enshrined in a bill. Finally, it was envisaged that leaders to pioneer the formation of gymnastic clubs would be recruited and trained by the army so that, as it was put:

> A definite attempt should be made to equalise the importance of physical and mental fitness. 15

The second scheme, Scientific Recreation for National Development, was drawn up to ensure development "to the highest pitch of physical perfection" at the age of twenty-five. It was hoped that this could be achieved through the establishment of an Irish Gymnastic Association, with headquarters in the Phoenix Park, Dublin. The central feature of this headquarters was to be a physical stadium.

At this time Lieutenant Tichy was also training army instructors who in turn were conducting the Department of Education courses already referred to. The Department's report for 1934-35 points out that the 1934 courses included Swedish exercises and gymnastics, the organisation of games and athletics, swimming, lectures on anatomy and physiology, and a display of the Sokol System of physical education.[16] Tomas Derrig, the Minister for Education, in his report to the Dail on the education estimates in April 1935, had the following to say:

> Ta rud suimiuil amhain ar mhaith liom tagairt faoi leith a dheanamh do, se sin, an meadu mor a thainig ar uimhir scoil Ghairm-Oideachais a bhfuil corp-oiliuint a theagaisc iontu. Thainig feabhas ar eifeacht an teagaisc agus rinneadh aithriu ar na ceachtai a cleachtuiti. 17

Furthermore, Colonel F. McCauley, the Army Chief of Staff, in writing to the Czechoslovakian Consul in Dublin, stated that eleven instructors were being supplied to national and secondary schools.[18]

Tichy also prepared four manuals, one of which was entitled Syllabus of Physical Education for Schools.[19] This was a translation of a Czech manual. In the preface, the Director of Training in the Irish army's School of Physical Culture stated that instruction in schools and colleges was to be in accordance with its contents.

The preparation of this manual appears to have been Tichy's final contribution to the development of physical education in Ireland. The whole experience seems to have had an effect on only a small number of schools.[20] School children in the vicinity of the Curragh Army Barracks in County Kildare were taught the Sokol System by military instructors while Sergeant Cavanagh of Portobello Barracks in Dublin taught the system in the Dominican Convent, Eccles Street, Dublin.

The system was "gaelicised" to make it more acceptable to certain schools. Colonel Fritz Brasse of the Irish army arranged a selection of Irish airs to suit the different exercises. Irish dancing was also incorporated into the system and instructors were introduced to games from a teacher's handbook entitled *Cleachta Luatha d'aos Og na hEireann*.[21]

The system was taught for a short while in a number of secondary schools in Dublin. It was started in Athlone but concluded when the soldiers who taught it were transferred. An unofficial attempt was made to introduce it into primary schools in County Donegal but it was discontinued due to lack of finance.

Any attempt to explain what prompted the Department of Defence to engage in these developments would be little more than speculation. It is likely that the army genuinely felt that its own physical training scheme was outdated. However, along with this it was stated in the scheme entitled *Scientific Recreation for National Development* that:

> Ireland's liberty may yet be at stake and the defensive qualities of the nation depend on the physical fitness of its people. 22

This, more than likely, is a reference to the I.R.A. and the Blueshirt movement. Both groups were active at the time and threatening the stability of the state. It may have been felt that a physically fit youth population could be drafted to combat the threat which they were posing.

It must also be kept in mind that 1932 was a year of awakening in physical education in Ireland. This, to some extent, was due to the lack of success of Irish athletes at the revived national athletic festival, the Tailteann Games, held in Croke Park, in Dublin. However, it was also due to the success of Bob Tisdall, gold medallist in the 440 yard hurdles, and Dr. Pat O'Callaghan, gold medallist in the hammer, in the Olympic Games at Los Angeles.

The involvement of the Irish army in the development of physical education was also a reflection of the interest shown by the military in the development of the subject in other societies. When the National Socialists came to power in Germany they seized control of all sport, athletic, and youth organisations, as well as the school physical education programmes which had existed under the Weimar Republic.[23] When the Fascist Party took over in military dominated Italy they added a Department of Physical Education to the Ministry of Education.[24] School programmes were outlined in state manuals and featured marching, calisthenics, apparatus gymnastics, mass games, and track and field activities. Of course by now physical education also had prominence in both the U.S.A. and the U.S.S.R.

It would appear as if it was an awareness of the developed state of the subject in such societies along with developments at home, that prompted the Minister for Education in Ireland to set up a committee to advise him on the state of physical education in the country. In a letter of invitation to the members of the committee, it was stated:

> The Minister for Education ... has had under consideration the need for a properly organised and co-ordinated system of physical culture in schools - primary, secondary and vocational, in Saorstat Eireann. 25

The letter went on to state that the Minister was aware of the efforts that were made in other European countries through the operation of various systems to develop the physical side of education and to improve by such means the general standard of health in the community. The committee published a Report on Physical Education in 1938.[26] This report contained various recommendations - the establishment of a Central Institute of Physical Education, the awarding of scholarships to the Institute, physical education to be a compulsory subject in all schools, suitable equipment to be provided in all secondary and vocational schools. These recommendations never saw their way into school life in Ireland. However, there is little doubt but that for "The Emergency" the Department of Education would have established the Central Institute for Physical Education. On 9 January 1943, the Department wrote to An Runai, Roinn an Taoisigh, stating that there had been agreement in principle with the proposal that the Institute be established, that the matter had been investigated fully, and that consideration had been given to the matter of the selection of a site and the financing of the college.[27] The letter went on to point out that the Minister for Education, accompanied by officers of the Department, inspected suggested sites, and Colaiste Moibhi, Phoenix Park, was decided on. Details in regard to staffing, accommodation, and equipment, were obtained from the Carnegie Physical Training College, Beckett Park, Leeds, and the information in regard to the financing of the college was received from the City of Leeds Education Department. The letter also stated that the plans had to be abandoned with the outbreak of the Second World War. It was not until 1965 that physical education re-established itself with the appointment of an inspector of physical education. Eventually the National College of Physical Education was established in Limerick in 1973.

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